

APPENDIX B

STATISTICAL TABLES

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Appendix table 1-1. Resident population of the United States, by race/ethnicity and sex: July 1995

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| Race/ethnicity and sex | Number (in thousands) | Percent |
|----------------------------|-----------------------|---------|
| All races/ethnicities..... | 262,890 | 100.0 |
| Men..... | 128,569 | 48.9 |
| Women..... | 134,321 | 51.1 |
| White, non-Hispanic..... | 193,281 | 73.5 |
| Men..... | 94,410 | 35.9 |
| Women..... | 98,871 | 37.6 |
| Asian..... | 8,836 | 3.4 |
| Men..... | 4,279 | 1.6 |
| Women..... | 4,557 | 1.7 |
| Black, non-Hispanic..... | 31,565 | 12.0 |
| Men..... | 14,932 | 5.7 |
| Women..... | 16,634 | 6.3 |
| Hispanic..... | 27,277 | 10.4 |
| Men..... | 13,998 | 5.3 |
| Women..... | 13,278 | 5.1 |
| American Indian..... | 1,931 | 0.7 |
| Men..... | 950 | 0.4 |
| Women..... | 981 | 0.4 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: U.S. Bureau of the Census, PPL-57. *United States Population Estimates, by Age, Sex, Race, and Hispanic Origin, 1990 to 1996*.

Appendix table 1-2. Civilian labor force age 20 and older, by race, sex, and Hispanic origin: 1995

| Race/ethnicity and sex | Number (in thousands) | Percent | Page 1 of 1 |
|------------------------|-----------------------|---------|-------------|
| All races..... | 124,539 | 100.0 | |
| Men..... | 67,324 | 54.1 | |
| Women..... | 57,215 | 45.9 | |
| White..... | 105,405 | 84.6 | |
| Men..... | 57,719 | 46.3 | |
| Women..... | 47,686 | 38.3 | |
| Black..... | 13,905 | 11.2 | |
| Men..... | 6,730 | 5.4 | |
| Women..... | 7,175 | 5.8 | |
| Hispanic..... | 11,418 | 9.2 | |
| Men..... | 6,898 | 5.5 | |
| Women..... | 4,520 | 3.6 | |

NOTES: Details will not add to totals because data for "other races" group are not presented and Hispanics include both white and black population groups.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 1-3. Number and percent of persons of all ages, by sex and disability status: 1994

Page 1 of 1

| Race/ethnicity and sex | Number (in thousands) | Percent |
|--------------------------|-----------------------|---------|
| All persons..... | 261,749 | 100.0 |
| Men..... | 127,908 | 48.9 |
| Women..... | 133,840 | 51.1 |
| With any disability | 53,907 | 20.6 |
| Men..... | 25,335 | 9.7 |
| Women..... | 28,572 | 10.9 |
| With a severe disability | 25,969 | 9.9 |
| Men..... | 10,635 | 4.1 |
| Women..... | 15,334 | 5.9 |
| With no disability | 207,842 | 79.4 |
| Men..... | 102,574 | 39.2 |
| Women..... | 105,268 | 40.2 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1994-1995 data from the Survey of Income and Program Participation.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 1-4. Number and percent of employed persons of all ages, by sex and disability status: 1994

| Race/ethnicity and sex | Number (in thousands) | Percent |
|-------------------------------|-----------------------|---------|
| All persons..... | 125,591 | 100.0 |
| Men..... | 67,937 | 54.1 |
| Women..... | 57,654 | 45.9 |
| With any disability..... | 17,507 | 13.9 |
| Men..... | 9,530 | 7.6 |
| Women..... | 7,977 | 6.4 |
| With a severe disability..... | 4,243 | 3.4 |
| Men..... | 2,004 | 1.6 |
| Women..... | 2,238 | 1.8 |
| With no disability..... | 108,084 | 86.1 |
| Men..... | 58,407 | 46.5 |
| Women..... | 49,677 | 39.6 |

NOTE: Because of rounding, details may not add up to totals.

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1994-1995 data from the Survey of Income and Program Participation.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 1-5. Employed scientists and engineers, by sex, race/ethnicity, and disability status: 1995

| Sex, race/ethnicity and disability status | Number | Percent | Page 1 of 1 |
|---|-----------|---------|-------------|
| All persons..... | 3,185,600 | 100.0 | |
| Women..... | 713,500 | 22.4 | |
| Men..... | 2,472,100 | 77.6 | |
| White..... | 2,673,600 | 83.9 | |
| Asian..... | 304,600 | 9.6 | |
| Black..... | 107,500 | 3.4 | |
| Hispanic..... | 90,100 | 2.8 | |
| American Indian..... | 8,000 | 0.3 | |
| With no disability..... | 3,031,200 | 95.2 | |
| Women..... | 682,200 | 21.4 | |
| Men..... | 2,349,000 | 73.7 | |
| White..... | 2,541,800 | 79.8 | |
| Asian..... | 291,600 | 9.2 | |
| Black..... | 103,600 | 3.3 | |
| Hispanic..... | 85,200 | 2.7 | |
| American Indian..... | 7,300 | 0.2 | |
| With a disability..... | 154,400 | 4.9 | |
| Women..... | 31,300 | 1.0 | |
| Men..... | 123,100 | 3.9 | |
| White..... | 131,900 | 4.1 | |
| Asian..... | 13,000 | 0.4 | |
| Black..... | 3,900 | 0.1 | |
| Hispanic..... | 4,900 | 0.2 | |
| American Indian..... | 700 | 0.0 | |

NOTES: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 2-1. Percentage of public and private school students who were minority: 1987-1988, 1990-1991, and 1993-1994

| Year | Total | Public | Private | Page 1 of 1 |
|---------------------|-------|--------|---------|-------------|
| All minorities | | | | |
| 1987-1988..... | 28.0 | 29.3 | 18.9 | |
| 1990-1991..... | 30.4 | 31.4 | 21.7 | |
| 1993-1994..... | 31.5 | 32.7 | 22.1 | |
| Asian | | | | |
| 1987-1988..... | 2.6 | 2.5 | 3.2 | |
| 1990-1991..... | 3.0 | 2.9 | 4.1 | |
| 1993-1994..... | 3.4 | 3.4 | 4.1 | |
| Black, non-Hispanic | | | | |
| 1987-1988..... | 15.3 | 16.3 | 8.1 | |
| 1990-1991..... | 15.3 | 16.1 | 8.3 | |
| 1993-1994..... | 15.5 | 16.3 | 9.3 | |
| Hispanic | | | | |
| 1987-1988..... | 9.1 | 9.4 | 7.1 | |
| 1990-1991..... | 10.8 | 11.1 | 8.6 | |
| 1993-1994..... | 11.5 | 11.9 | 8.0 | |

SOURCE: Henke, Robin R., Susan B. Choy, and Sonya Geis. 1996. U.S. Department of Education/NCES. Schools and Staffing Survey: 1987-1988, 1990-1991, and 1993-1994 (School questionnaire).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-2. Percentage of teachers who were minority, by sector: 1987-1988, 1990-1991, and 1993-1994

Page 1 of 1

| Year | Total | Public | Private |
|----------------|-------|--------|---------|
| 1987-1988..... | 11.9 | 12.5 | 6.9 |
| 1990-1991..... | 12.8 | 13.5 | 7.8 |
| 1993-1994..... | 12.8 | 13.5 | 8.1 |

SOURCE: Henke, Robin R., Susan B. Choy, and Sonya Geis. 1996. U.S. Department of Education/NCES. Schools and Staffing Survey: 1987-1988, 1990-1991, and 1993-1994 (Teacher questionnaire).

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-3. Students age 6-21 with disabilities receiving special education services, by educational environment: 1988-1994 school years

[Percent distribution]

Page 1 of 1

| Year | Regular class | Resource room | Separate class | Public separate facility | Private separate facility | Public residential facility | Private residential facility | Homebound/hospital |
|----------------|---------------|---------------|----------------|--------------------------|---------------------------|-----------------------------|------------------------------|--------------------|
| 1987-1988..... | 29.1 | 40.0 | 24.7 | 3.5 | 1.4 | 0.5 | 0.3 | 0.7 |
| 1988-1989..... | 30.6 | 38.8 | 24.2 | 3.2 | 1.3 | 0.6 | 0.3 | 0.8 |
| 1989-1990..... | 31.7 | 37.5 | 24.8 | 3.2 | 1.3 | 0.6 | 0.3 | 0.6 |
| 1990-1991..... | 33.1 | 36.3 | 25.0 | 2.9 | 1.3 | 0.6 | 0.3 | 0.5 |
| 1991-1992..... | 34.9 | 36.3 | 23.5 | 2.5 | 1.4 | 0.6 | 0.3 | 0.5 |
| 1992-1993..... | 39.8 | 31.7 | 23.4 | 2.4 | 1.2 | 0.6 | 0.2 | 0.5 |
| 1993-1994..... | 43.4 | 29.4 | 22.7 | 2.2 | 1.0 | 0.5 | 0.3 | 0.6 |

SOURCES: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Eighteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 1996* and *Digest of Education Statistics, 1989 to 1995*.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-4. Students age 6-21 with disabilities receiving special education services, by type of disability and educational environment: 1993-1994 school year

[Percent distribution]

Page 1 of 1

| Disability | Regular class | Resource room | Separate class | Separate school | Residential facility | Homebound/hospital |
|-------------------------------------|---------------|---------------|----------------|-----------------|----------------------|--------------------|
| All disabilities..... | 43.4 | 29.5 | 22.7 | 3.1 | 0.7 | 0.6 |
| Specific learning disabilities..... | 39.3 | 41.0 | 18.8 | 0.6 | 0.1 | 0.1 |
| Speech or language impairments..... | 87.5 | 7.6 | 4.5 | 0.3 | 0.0 | 0.1 |
| Mental retardation..... | 8.6 | 26.1 | 57.0 | 7.0 | 0.7 | 0.5 |
| Serious emotional disturbance..... | 20.5 | 25.8 | 35.3 | 13.4 | 3.2 | 1.8 |
| Multiple disabilities..... | 9.1 | 19.8 | 44.1 | 21.8 | 3.2 | 2.0 |
| Hearing impairments..... | 30.6 | 20.0 | 30.6 | 7.0 | 11.6 | 0.2 |
| Orthopedic impairments..... | 37.4 | 20.7 | 33.3 | 5.3 | 0.5 | 2.9 |
| Other health impairments..... | 40.0 | 27.0 | 21.3 | 1.8 | 0.4 | 9.4 |
| Visual impairments..... | 45.2 | 21.3 | 18.3 | 4.1 | 10.6 | 0.5 |
| Autism..... | 9.6 | 8.1 | 54.5 | 23.4 | 3.9 | 0.5 |
| Deaf-blindness..... | 7.7 | 8.0 | 34.6 | 24.3 | 23.2 | 2.2 |
| Traumatic brain injury..... | 22.3 | 23.5 | 30.2 | 18.3 | 2.6 | 3.0 |

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services. 1996. *Eighteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act.*

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-5. Percentage of high school graduates taking selected mathematics and science courses in high school, by sex: 1982, 1987, 1990, and 1994

Page 1 of 1

| Mathematics and science courses (credits) | 1982 ¹ | | | 1987 ¹ | | | 1990 ¹ | | | 1994 | | |
|---|-------------------|------|--------|-------------------|------|--------|-------------------|------|--------|-------|------|--------|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| Mathematics ² | | | | | | | | | | | | |
| Any mathematics (1.00)..... | 98.5 | 98.8 | 98.3 | 98.9 | 98.7 | 99.1 | 99.6 | 99.5 | 99.6 | 99.6 | 99.5 | 99.6 |
| Algebra I (1.00)..... | 53.9 | 52.2 | 55.4 | 64.0 | 62.3 | 65.7 | 64.2 | 61.7 | 66.5 | 66.4 | 64.7 | 68.1 |
| Geometry (1.00)..... | 45.5 | 45.0 | 45.9 | 59.7 | 58.8 | 60.4 | 63.4 | 62.4 | 64.4 | 70.4 | 68.3 | 72.4 |
| Algebra II (0.50)..... | 32.2 | 32.4 | 32.0 | 48.6 | 47.3 | 48.9 | 51.7 | 50.0 | 53.3 | 58.6 | 55.4 | 61.6 |
| Trigonometry (0.50)..... | 12.1 | 13.2 | 11.1 | 18.6 | 19.5 | 17.6 | 18.2 | 18.1 | 18.2 | 17.2 | 16.6 | 17.8 |
| Analysis/precalculus (0.50)..... | 5.9 | 6.2 | 5.6 | 12.6 | 13.5 | 11.6 | 13.4 | 14.0 | 12.8 | 17.3 | 16.3 | 18.2 |
| Statistics/probability (0.50)..... | 1.0 | 1.1 | 0.9 | 1.3 | 1.1 | 1.2 | 1.0 | 1.2 | 0.8 | 2.0 | 2.0 | 2.1 |
| Calculus (1.00)..... | 4.6 | 5.1 | 4.1 | 6.0 | 7.4 | 4.6 | 6.5 | 7.5 | 5.6 | 9.2 | 9.4 | 9.1 |
| AP calculus (1.00)..... | 1.5 | 1.6 | 1.4 | 3.2 | 3.8 | 2.7 | 4.1 | 5.0 | 3.4 | 7.0 | 7.2 | 6.8 |
| Science | | | | | | | | | | | | |
| Any science (1.00)..... | 96.6 | 96.4 | 96.7 | 98.7 | 98.4 | 99.0 | 99.4 | 99.1 | 99.6 | 99.5 | 99.3 | 99.8 |
| Biology (1.00)..... | 76.4 | 74.2 | 78.4 | 87.8 | 86.3 | 89.4 | 91.3 | 90.0 | 92.5 | 93.5 | 92.3 | 94.7 |
| AP/honors biology (1.00)..... | 6.6 | 6.1 | 7.1 | 2.7 | 2.8 | 2.6 | 4.9 | 4.4 | 5.4 | 4.6 | 4.0 | 5.1 |
| Chemistry (1.00)..... | 30.9 | 31.9 | 30.0 | 43.7 | 44.3 | 43.2 | 49.0 | 47.9 | 50.0 | 56.0 | 53.2 | 58.7 |
| AP/honors chemistry (1.00)..... | 2.9 | 3.5 | 2.3 | 3.3 | 3.9 | 2.7 | 3.5 | 4.1 | 2.9 | 3.9 | 4.1 | 3.7 |
| Physics (1.00)..... | 14.2 | 18.8 | 10.0 | 19.2 | 24.0 | 14.6 | 21.5 | 25.4 | 18.0 | 24.4 | 26.9 | 22.0 |
| AP/honors physics (1.00)..... | 1.0 | 1.4 | 0.7 | 1.6 | 2.4 | 0.9 | 2.0 | 2.5 | 1.6 | 2.4 | 3.0 | 1.8 |
| Engineering (1.00)..... | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.2 |
| Astronomy (0.50)..... | 1.1 | 1.3 | 0.9 | 1.0 | 1.1 | 0.8 | 1.2 | 1.4 | 1.1 | 1.7 | 2.0 | 1.5 |
| Geology/earth science (0.50)..... | 13.2 | 14.2 | 12.3 | 14.5 | 15.0 | 13.8 | 24.8 | 25.7 | 24.1 | 23.0 | 22.8 | 23.2 |
| Biology and chemistry (2.00)..... | 28.1 | 28.2 | 28.0 | 42.1 | 42.2 | 42.0 | 47.6 | 46.4 | 48.8 | 53.8 | 50.9 | 56.6 |
| Biology, chemistry, physics (3.00)..... | 10.6 | 13.4 | 7.9 | 16.4 | 20.2 | 12.8 | 18.8 | 21.8 | 16.1 | 21.3 | 23.1 | 19.6 |

¹ Numbers were revised from previously published figures.

² These data report only the percentage of students who earned credit in each mathematics course while in high school and do not count those students who took these courses prior to entering high school. In 1992, for example, approximately 93 percent of students had taken algebra I at some point before graduating high school, either before or during high school, and about 70 percent had taken geometry.

³ Percent is less than 0.05 and is rounded to 0.

SOURCE: Smith, Thomas D., Charlene M. Hoffman, and Claire M. Geddes. 1997. U.S. Department of Education, National Center for Education Statistics, *The Condition of Education, 1996* (NCES 96-304), supplemental table 29-1.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-6. Average NAEP scale scores in science and mathematics in grades 4, 8, and 12, by sex and race/ethnicity: 1996

Page 1 of 1

| | Mathematics | | | Science ¹ | | |
|----------------------|-------------|---------|----------|----------------------|---------|----------|
| | Grade 4 | Grade 8 | Grade 12 | Grade 4 | Grade 8 | Grade 12 |
| All students..... | 224 | 272 | 304 | 150 | 150 | 150 |
| Male..... | 226 | 272 | 305 | 151 | 151 | 152 |
| Female..... | 222 | 272 | 303 | 149 | 149 | 148 |
| White..... | 232 | 282 | 311 | 160 | 159 | 159 |
| Asian..... | 232 | * | 319 | 151 | 152 | 149 |
| Black..... | 200 | 243 | 280 | 124 | 121 | 124 |
| Hispanic..... | 206 | 251 | 287 | 128 | 129 | 130 |
| American Indian..... | 216 | 264 | 279 | 144 | 148 | 145 |

¹NAEP science scales were developed independently for each grade assessed; therefore, results are not comparable across grades. Science scale scores for all grades range from 0 to 300.

*Quality-control activities and special analyses involving state assessment data raised concerns about the accuracy and precision of national grade 8 Asian results. Therefore, they are omitted from this table.

NOTES: Standard errors are included in source publication. Mathematics scale scores range from 0 to 500 across all three grades.

SOURCES: Reese et al. 1997. *NAEP 1996 Mathematics Report Card for the Nation and the States* and O'Sullivan et al. 1997. *NAEP 1996 Science Report Card for the Nation and the States*, Washington, DC: U.S. Department of Education.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-7. Average mathematics scale scores, by sex and race/ethnicity: 1990, 1992, and 1996

| | 1990 | 1992 | 1996 | Page 1 of 1 |
|----------------------|------|------|------|-------------|
| Grade 4 | | | | |
| All students..... | 213 | 220 | 224 | |
| Male..... | 214 | 221 | 226 | |
| Female..... | 213 | 219 | 222 | |
| White..... | 220 | 228 | 232 | |
| Asian..... | 228 | 232 | 232 | |
| Black..... | 189 | 193 | 200 | |
| Hispanic..... | 198 | 202 | 206 | |
| American Indian..... | 208 | 211 | 216 | |
| Grade 8 | | | | |
| All students..... | 263 | 268 | 272 | |
| Male..... | 263 | 268 | 272 | |
| Female..... | 262 | 269 | 272 | |
| White..... | 270 | 278 | 282 | |
| Asian..... | 279 | 288 | ** | |
| Black..... | 238 | 238 | 243 | |
| Hispanic..... | 244 | 247 | 251 | |
| American Indian..... | 246 | 255 | 264 | |
| Grade 12 | | | | |
| All students..... | 294 | 299 | 304 | |
| Male..... | 297 | 301 | 305 | |
| Female..... | 291 | 298 | 303 | |
| White..... | 301 | 306 | 311 | |
| Asian..... | 311 | 316 | 319 | |
| Black..... | 268 | 276 | 280 | |
| Hispanic..... | 276 | 284 | 287 | |
| American Indian..... | * | * | 279 | |

* Sample size insufficient to permit a reliable estimate.

**Quality-control activities and special analyses involving state assessment data raised concerns about the accuracy and precision of national grade 8 Asian results. Therefore, they are omitted from this table.

NOTE: Mathematics scale scores range from 0 to 500 across all three grades.

SOURCE: Reese et al. 1997. *NAEP 1996 Mathematics Report Card for the Nation and the States*. Washington, DC: U.S. Department of Education.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-8. Percentage attaining mathematics proficiency levels on the National Assessment of Educational Progress for grades 4, 8, and 12, by sex and race/ethnicity: 1990-1996, selected years

Page 1 of 1

| | 1990 | | | | 1992 | | | | 1996 | | | |
|----------------------|----------|------------------------|-------------------|-------------|----------|------------------------|-------------------|-------------|----------|------------------------|-------------------|-------------|
| | Advanced | At or above proficient | At or above basic | Below basic | Advanced | At or above proficient | At or above basic | Below basic | Advanced | At or above proficient | At or above basic | Below basic |
| Grade 4 | | | | | | | | | | | | |
| All students..... | 1 | 13 | 50 | 50 | 2 | 18 | 59 | 41 | 2 | 21 | 64 | 36 |
| Male..... | 2 | 13 | 51 | 49 | 2 | 19 | 60 | 40 | 3 | 24 | 65 | 35 |
| Female..... | 1 | 12 | 49 | 51 | 1 | 16 | 57 | 43 | 1 | 19 | 63 | 37 |
| White..... | 2 | 16 | 59 | 41 | 2 | 23 | 70 | 30 | 3 | 28 | 76 | 24 |
| Asian..... | 3 | 23 | 65 | 35 | 4 | 30 | 75 | 25 | 5 | 26 | 73 | 27 |
| Black..... | 0 | 1 | 19 | 81 | 0 | 3 | 23 | 77 | 0 | 5 | 32 | 68 |
| Hispanic..... | 0 | 5 | 31 | 69 | 0 | 5 | 35 | 65 | 0 | 8 | 41 | 59 |
| American Indian..... | 0 | 5 | 44 | 56 | 2 | 10 | 43 | 57 | 1 | 8 | 52 | 48 |
| Grade 8 | | | | | | | | | | | | |
| All students..... | 2 | 15 | 52 | 48 | 3 | 21 | 58 | 42 | 4 | 24 | 62 | 38 |
| Male..... | 2 | 17 | 52 | 48 | 3 | 21 | 57 | 43 | 4 | 25 | 62 | 38 |
| Female..... | 2 | 14 | 52 | 48 | 3 | 21 | 58 | 42 | 3 | 23 | 63 | 37 |
| White..... | 3 | 19 | 61 | 39 | 4 | 27 | 69 | 31 | 5 | 31 | 74 | 26 |
| Asian..... | 5 | 32 | 71 | 29 | 13 | 40 | 76 | 24 | ** | ** | ** | ** |
| Black..... | 0 | 5 | 22 | 78 | 0 | 2 | 21 | 79 | 0 | 4 | 28 | 72 |
| Hispanic..... | 0 | 5 | 32 | 68 | 1 | 6 | 34 | 66 | 1 | 9 | 39 | 61 |
| American Indian..... | 0 | 6 | 33 | 67 | 0 | 7 | 39 | 61 | 2 | 13 | 51 | 49 |
| Grade 12 | | | | | | | | | | | | |
| All students..... | 1 | 12 | 58 | 42 | 2 | 15 | 64 | 36 | 2 | 16 | 69 | 31 |
| Male..... | 2 | 15 | 60 | 40 | 2 | 17 | 65 | 35 | 3 | 18 | 70 | 30 |
| Female..... | 1 | 9 | 56 | 44 | 1 | 13 | 63 | 37 | 1 | 14 | 69 | 31 |
| White..... | 2 | 14 | 66 | 34 | 2 | 18 | 72 | 28 | 2 | 20 | 79 | 21 |
| Asian..... | 5 | 23 | 75 | 25 | 4 | 30 | 81 | 19 | 7 | 33 | 81 | 19 |
| Black..... | 0 | 2 | 27 | 73 | 0 | 2 | 34 | 66 | 0 | 4 | 38 | 62 |
| Hispanic..... | 0 | 4 | 36 | 64 | 0 | 6 | 45 | 55 | 0 | 6 | 50 | 50 |
| American Indian..... | * | * | * | * | * | * | * | * | 0 | 3 | 34 | 66 |

* Sample size insufficient to permit a reliable estimate.

**Quality-control activities and special analyses involving assessment data raised concerns about the accuracy and precision of national grade 8 Asian results. Therefore, they are omitted from the table.

NOTE: Standard errors are included in source publication.

SOURCE: Reese et al. 1997. *NAEP 1996 Mathematics Report Card for the Nation and the States*. Washington, DC: U.S. Department of Education.

**Appendix table 2-9. Percentage of high school graduates taking selected science and mathematics courses in high school, by race/ethnicity:
1982, 1987, 1990, and 1994**

Page 1 of 1

| Courses (credits) | 1982 ¹ | | | | | 1987 ¹ | | | | | 1990 | | | | | 1994 | | | | |
|---|-------------------|-------|----------|------------------|------------------|-------------------|-------|----------|-------|------------------|-------|-------|------------------|------------------|-----------------|-------|-------|----------|------------------|-----------------|
| | White | Black | Hispanic | Asian | American Indian | White | Black | Hispanic | Asian | American Indian | White | Black | Hispanic | Asian | American Indian | White | Black | Hispanic | Asian | American Indian |
| Mathematics² | | | | | | | | | | | | | | | | | | | | |
| Any mathematics (1.00)..... | 98.7 | 99.2 | 97.2 | 100.0 | 99.6 | 98.9 | 98.2 | 99.1 | 99.8 | 98.7 | 99.5 | 99.5 | 99.9 | 99.9 | 100.0 | 99.6 | 99.3 | 99.2 | 100.0 | 98.9 |
| Algebra I (1.00)..... | 57.8 | 42.4 | 42.4 | 55.5 | 33.2 | 66.1 | 54.6 | 53.6 | 63.6 | 60.9 | 64.2 | 65.1 | 64.8 | 63.2 | 61.7 | 67.5 | 65.0 | 70.7 | 61.7 | 58.7 |
| Geometry (1.00)..... | 51.0 | 28.8 | 25.6 | 64.9 | 33.2 | 63.0 | 42.2 | 39.6 | 81.1 | 43.2 | 65.6 | 56.2 | 53.6 | 70.6 | 55.7 | 72.7 | 58.1 | 69.4 | 75.8 | 60.0 |
| Algebra II (0.50)..... | 36.0 | 22.0 | 18.0 | 45.6 | 10.8 | 51.6 | 30.8 | 29.2 | 66.4 | 27.6 | 55.0 | 41.4 | 35.7 | 59.9 | 47.1 | 61.6 | 43.7 | 51.0 | 66.6 | 39.2 |
| Trigonometry (0.50)..... | 13.7 | 6.0 | 6.4 | 26.8 | 3.0 | 20.4 | 10.6 | 9.8 | 41.3 | 4.2 | 19.3 | 14.0 | 10.8 | 35.1 | 14.7 | 18.6 | 13.6 | 9.8 | 25.3 | 6.7 |
| Analysis/precalculus (0.50).... | 6.8 | 2.2 | 2.8 | 14.5 | 1.8 | 13.2 | 5.1 | 7.3 | 39.4 | 5.4 | 14.8 | 6.2 | 7.2 | 25.3 | 7.6 | 18.2 | 9.8 | 13.9 | 33.9 | 8.7 |
| Statistics/probability (0.50).... | 1.2 | 0.5 | 0.1 | 1.7 | ³ 0.0 | 1.4 | 0.3 | 0.2 | 1.5 | 0.0 | 1.0 | 1.1 | 0.9 | 1.5 | 0.3 | 2.3 | 1.7 | 1.0 | 1.1 | 1.2 |
| Calculus (1.00)..... | 5.4 | 1.3 | 1.7 | 12.8 | 4.0 | 5.6 | 2.2 | 3.6 | 29.4 | 0.4 | 6.9 | 2.8 | 3.8 | 18.5 | 4.2 | 9.6 | 3.8 | 6.0 | 23.4 | 3.8 |
| AP calculus (1.00)..... | 1.8 | 0.3 | 0.4 | 5.5 | 0.1 | 2.7 | 1.4 | 2.6 | 23.5 | 0.4 | 4.2 | 1.2 | 3.0 | 15.6 | 3.0 | 7.3 | 2.0 | 4.6 | 21.0 | 2.2 |
| Science | | | | | | | | | | | | | | | | | | | | |
| Any science (1.00)..... | 96.9 | 97.4 | 93.8 | 96.2 | 92.1 | 98.8 | 98.1 | 98.6 | 99.3 | 99.8 | 99.3 | 99.6 | 99.3 | 99.8 | 100.0 | 99.7 | 99.5 | 99.3 | 99.3 | 99.7 |
| Biology (1.00)..... | 78.3 | 73.0 | 68.2 | 83.7 | 66.7 | 88.7 | 84.7 | 85.4 | 91.5 | 90.2 | 91.5 | 91.3 | 90.3 | 90.4 | 90.5 | 94.4 | 91.3 | 94.0 | 90.9 | 91.2 |
| AP/honors biology (1.00)..... | 7.4 | 4.6 | 3.1 | 11.9 | 0.6 | 2.7 | 1.4 | 1.6 | 4.2 | 0.3 | 5.0 | 3.8 | 2.4 | 6.3 | 1.9 | 4.6 | 2.7 | 3.3 | 8.3 | 1.7 |
| Chemistry (1.00)..... | 34.1 | 21.9 | 15.5 | 52.8 | 25.9 | 46.6 | 28.4 | 29.1 | 69.8 | 26.4 | 51.5 | 40.3 | 38.4 | 63.6 | 35.5 | 58.5 | 43.8 | 46.5 | 69.3 | 41.3 |
| AP/honors chemistry (1.00).... | 3.3 | 1.6 | 1.3 | 5.8 | 0.9 | 3.4 | 1.1 | 2.2 | 15.3 | 0.6 | 3.7 | 2.5 | 1.1 | 7.7 | 4.5 | 4.3 | 2.1 | 2.5 | 7.7 | 0.6 |
| Physics (1.00)..... | 16.3 | 7.3 | 5.7 | 34.8 | 8.1 | 20.6 | 9.7 | 9.9 | 46.5 | 8.3 | 23.1 | 14.6 | 13.3 | 38.4 | 14.7 | 26.1 | 14.7 | 16.0 | 42.3 | 10.3 |
| AP/honors physics (1.00).... | 1.2 | 0.9 | 0.4 | 3.4 | ³ 0.0 | 1.6 | 0.4 | 0.8 | 5.6 | 1.4 | 2.1 | 0.7 | 1.0 | 5.9 | 0.5 | 2.5 | 1.4 | 1.8 | 6.0 | 0.3 |
| Engineering (1.00)..... | 0.2 | 0.1 | 0.1 | ³ 0.0 | ³ 0.0 | 0.1 | 0.4 | 0.1 | 0.4 | ³ 0.0 | 0.1 | 0.1 | ³ 0.0 | ³ 0.0 | 0.2 | 0.4 | 0.1 | 1.0 | ³ 0.0 | |
| Astronomy (0.50)..... | 1.3 | 0.4 | 0.7 | ³ 0.0 | ³ 0.0 | 0.9 | 0.3 | 0.7 | 0.7 | 0.5 | 1.4 | 0.4 | 1.1 | 0.7 | 1.7 | 2.0 | 0.6 | 0.4 | 0.8 | 2.2 |
| Geology/earth science (0.50).... | 14.0 | 10.0 | 11.2 | 9.6 | 18.8 | 14.0 | 18.1 | 11.6 | 12.4 | 12.3 | 27.6 | 15.9 | 14.0 | 15.7 | 31.0 | 23.8 | 23.3 | 15.3 | 16.7 | 23.2 |
| Biology and chemistry (2.00).... | 31.3 | 19.7 | 14.2 | 48.5 | 21.9 | 45.1 | 27.2 | 27.9 | 66.3 | 24.8 | 50.2 | 39.5 | 36.5 | 60.1 | 34.2 | 56.4 | 42.2 | 45.1 | 64.8 | 39.6 |
| Biology, chemistry, and physics (3.00)..... | 12.2 | 4.8 | 3.9 | 28.4 | 7.8 | 17.6 | 8.3 | 8.2 | 41.8 | 6.2 | 20.6 | 12.0 | 10.2 | 33.7 | 10.8 | 22.7 | 13.0 | 13.4 | 37.2 | 8.0 |

¹ Numbers were revised from previously published figures.

² These data report only the percentage of students who earned credit in each mathematics course while in high school and do not count those students who took these courses prior to entering high school. In 1992, for example, approximately 93 percent of students had taken algebra I at some point before graduating high school, either before or during high school, and about 70 percent had taken geometry.

³ Percent is less than 0.05 and is rounded to 0.

SOURCE: Smith et al. 1996. U.S. Department of Education, National Center for Education Statistics, The 1994 High School Transcript Study Tabulations: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates, 1996, in *The Condition of Education: 1996*, p. 255.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-10. Students age 6–21 in federally supported programs for students with disabilities, by type of disability: 1994–1995 school year

| Disability | Number | Percent | Page 1 of 1 |
|-------------------------------------|-----------|---------|-------------|
| All disabilities..... | 4,915,168 | 100.0 | |
| Specific learning disabilities..... | 2,513,977 | 51.1 | |
| Speech or language impairments..... | 1,023,665 | 20.8 | |
| Mental retardation..... | 570,855 | 11.6 | |
| Serious emotional disturbance..... | 428,168 | 8.7 | |
| Multiple disabilities..... | 89,646 | 1.8 | |
| Hearing impairments..... | 65,568 | 1.3 | |
| Orthopedic impairments..... | 60,604 | 1.2 | |
| Other health impairments..... | 106,509 | 2.2 | |
| Visual impairments..... | 24,877 | 0.5 | |
| Autism..... | 22,780 | 0.5 | |
| Deaf-blindness..... | 1,331 | 0.0 | |
| Traumatic brain injury..... | 7,188 | 0.1 | |

NOTES: Because of rounding, percentages may not add to 100. Includes students served under IDEA, Part B.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services. 1996. *Eighteenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*.

Appendix table 2-11. Total units in mathematics and science completed by students in the 12th grade in 1992 and average high school grade, by disability status and type of disability: 1992

| | Average mathematics units | Average science units | Average high school grade in mathematics | Average high school grade in science | Page 1 of 1 |
|-------------------------------------|---------------------------|-----------------------|--|--------------------------------------|-------------|
| Students without disabilities..... | 2.9 | 2.7 | 7.63 | 7.43 | |
| Students with disabilities..... | 2.4 | 2.2 | 8.37 | 8.32 | |
| Multiple disabilities..... | 2.5 | 1.9 | 8.27 | 8.70 | |
| Learning disability..... | 2.3 | 2.1 | 8.51 | 8.60 | |
| Health problems..... | 2.4 | 2.1 | 8.07 | 8.06 | |
| Physical or emotional problems..... | 2.6 | 2.1 | 8.26 | 8.25 | |
| Physical..... | 2.6 | 2.3 | 7.98 | 7.89 | |
| Emotional..... | 2.5 | 1.8 | 8.67 | 8.92 | |
| Sensory..... | 2.4 | 2.2 | 8.12 | 8.08 | |

NOTES: Students were identified as disabled by parents. High school credit units in mathematics and science are as reported on their high school transcripts. Data represent the eighth-grade panel population Grade is based on a 1-13 scale, where 1.0 = A+ and 13 = F.

SOURCE: Rossi, Robert, Jerald Herting, and Jean Wolman. 1997. U.S. Department of Education/NCES, *Profiles of Students with Disabilities as Identified in NELS:88* (NCES 97-254)

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-12. Proficiency in mathematics and science of students in the 12th grade, by disability status and type of disability: 1992

[In percentages]

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| | Below level 1 | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Percent change in number right in mathematics, from 1988 to 1992 |
|-------------------------------------|---------------|---------|---------|---------|---------|---------|--|
| Students without disabilities..... | 6.5 | 20.8 | 14.4 | 24.2 | 30.0 | 4.1 | 11.8 |
| Students with disabilities..... | 14.9 | 33.3 | 17.9 | 17.2 | 13.4 | 3.3 | 10.0 |
| Multiple disabilities..... | 19.9 | 38.1 | 15.7 | 15.9 | 9.9 | 0.5 | 8.9 |
| Learning disability..... | 22.9 | 38.2 | 17.6 | 15.1 | 5.7 | 0.4 | 8.7 |
| Health problems..... | 7.2 | 27.1 | 16.2 | 20.0 | 20.7 | 8.7 | 11.9 |
| Physical or emotional problems..... | 12.1 | 32.0 | 16.3 | 18.8 | 17.0 | 3.8 | 10.6 |
| Physical..... | 16.2 | 29.1 | 12.9 | 18.2 | 15.1 | 8.6 | 12.2 |
| Emotional..... | 11.7 | 41.6 | 9.9 | 26.4 | 8.6 | 1.8 | 10.6 |
| Sensory..... | 11.9 | 32.2 | 19.6 | 13.0 | 20.8 | 2.5 | 9.7 |

NOTES: Students were identified as disabled by parents. Data represent the eighth-grade panel population. Percentage represents the distribution within each disability status. Proficiency measures are based on standardized cognitive tests administered to all NELS:88 student participants in 1988, 1990, and 1992. Students achieved a specific proficiency level if they correctly answered at least three of the four questions within a proficiency level. Students at particular skill levels were assumed to have mastered the lower skill levels; likewise, students were assumed not to have mastered higher level skills. Only students with complete and consistent response patterns were assigned proficiency levels.

SOURCE: Rossi, Robert, Jerald Herting, and Jean Wolman. 1997. U.S. Department of Education/NCES, *Profiles of Students with Disabilities as Identified in NELS:88* (NCES 97-254).

Appendix table 2-13. Percentage of persons who have completed high school, by race/ethnicity and sex: 1975, 1985, and 1995

Page 1 of 1

| | 25 years old and over | | | 25 to 29 years old | | |
|--------------------------|-----------------------|------|------|--------------------|------|------|
| | 1975 | 1985 | 1995 | 1975 | 1985 | 1995 |
| Total..... | 62.5 | 73.9 | 81.7 | 83.1 | 86.1 | 86.9 |
| Men..... | 63.1 | 74.4 | 81.7 | 84.5 | 85.9 | 86.3 |
| Women..... | 62.1 | 73.5 | 81.6 | 81.8 | 86.4 | 87.4 |
| White, non-Hispanic..... | 65.8 | 77.5 | 85.9 | 86.6 | 89.5 | 92.5 |
| Black, non-Hispanic..... | 42.6 | 59.9 | 73.8 | 71.1 | 80.5 | 86.7 |
| Hispanic..... | 38.5 | 47.9 | 53.4 | 53.1 | 60.9 | 57.2 |

SOURCES: Day, Jennifer, and Curry, Andrea. 1996. *Educational Attainment in the United States: March 1995*. Current Population Reports P20-489. Washington, DC.: U.S. Department of Commerce.

Snyder, Thomas D., Charlene M. Hoffman, and Claire M. Geddes. 1998. *Digest of Education Statistics 1997* (NCES 98-015). Washington, DC: U.S. Government Printing Office.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-14. Percentage of students with disabilities age 14 and older exiting special education, by type of disability and basis of exit: 1993-1994

Page 1 of 1

| Type of disability | Total | Graduated with diploma | Graduated with certificate | Reached maximum age | Returned to regular education | Moved, known to be continuing | Moved, not known to be continuing | Died | Dropped out |
|-------------------------------------|-------|------------------------|----------------------------|---------------------|-------------------------------|-------------------------------|-----------------------------------|------|-------------|
| All disabilities..... | 26.8 | 7.5 | 1.6 | 0.3 | 4.0 | 5.5 | 2.8 | 0.1 | 5.1 |
| Specific learning disabilities..... | 25.9 | 8.4 | 1.2 | 0.1 | 3.8 | 5.0 | 2.5 | 0.1 | 4.9 |
| Speech or language impairments..... | 38.2 | 7.0 | 1.0 | 0.2 | 17.0 | 4.9 | 4.2 | 0.1 | 3.8 |
| Mental retardation..... | 21.9 | 5.8 | 3.8 | 1.0 | 0.9 | 4.1 | 2.0 | 0.2 | 4.2 |
| Serious emotional disturbance..... | 37.0 | 6.0 | 0.9 | 0.2 | 4.3 | 10.7 | 5.8 | 0.1 | 9.2 |
| Multiple disabilities..... | 12.8 | 3.2 | 1.7 | 1.4 | 0.8 | 3.1 | 0.8 | 0.3 | 1.4 |
| Hearing impairments..... | 22.0 | 9.7 | 1.7 | 0.2 | 2.3 | 3.9 | 1.6 | 0.1 | 2.5 |
| Mobility impairments..... | 26.9 | 9.0 | 1.7 | 0.8 | 7.3 | 3.7 | 1.6 | 0.5 | 2.4 |
| Other health impairments..... | 39.8 | 8.5 | 0.7 | 0.2 | 17.9 | 5.8 | 2.0 | 0.4 | 3.8 |
| Visual impairments..... | 22.2 | 10.3 | 1.2 | 0.6 | 2.4 | 3.6 | 1.8 | 0.2 | 2.2 |
| Autism..... | 12.1 | 2.9 | 2.1 | 1.4 | 0.9 | 2.6 | 1.3 | 0.1 | 1.0 |
| Deaf-blindness..... | 24.9 | 6.0 | 4.6 | 1.4 | 1.9 | 5.6 | 3.0 | 1.1 | 1.4 |
| Traumatic brain injury..... | 26.7 | 9.5 | 1.8 | 1.0 | 3.0 | 6.4 | 1.9 | 0.1 | 3.0 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, Office of Special Education Programs. 1996. *Eighteenth Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act*.

Appendix table 2-15. SAT average scores, by family income: 1996

| Family income | SAT I test takers | Percent | | SAT I verbal | SAT I mathematics | Page 1 of 1 |
|--------------------------|-------------------|---------|------|--------------|----------------------|-------------|
| | | Number | Male | Female | Mean scores | |
| Less than \$10,000..... | 45,841 | 37 | 63 | 429 | 444 | |
| \$10,000-\$20,000..... | 86,005 | 41 | 59 | 456 | 464 | |
| \$20,000-\$30,000..... | 108,048 | 43 | 57 | 482 | 482 | |
| \$30,000-\$40,000..... | 130,075 | 45 | 55 | 497 | 495 | |
| \$40,000-\$50,000..... | 108,641 | 47 | 53 | 509 | 507 | |
| \$50,000-\$60,000..... | 102,562 | 48 | 52 | 517 | 517 | |
| \$60,000-\$70,000..... | 78,463 | 48 | 52 | 524 | 525 | |
| \$70,000-\$80,000..... | 63,841 | 49 | 51 | 531 | 533 | |
| \$80,000-\$100,000..... | 74,691 | 49 | 51 | 541 | 544 | |
| More than \$100,000..... | 100,429 | 51 | 49 | 560 | 569 | |
| No response..... | 186,129 | - | - | - | - | |

NOTE: - = Not applicable.

SOURCE: College Board, 1996a. Profile of College-Bound Seniors National Report.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 2-16. Course-taking patterns of college-bound seniors,
by mathematics and science fields: 1996**

Page 1 of 1

| Mathematics | SAT I test takers | | Percent | | SAT I mean scores | |
|---|--------------------------|----------------|----------------|---------------|--------------------------|--------------------|
| | Number | Percent | Male | Female | Verbal | Mathematics |
| Years of study | | | | | | |
| 4 or more years..... | 671,345 | 68 | 46 | 54 | 522 | 530 |
| 3 years..... | 279,791 | 28 | 44 | 56 | 477 | 465 |
| 2 years..... | 29,238 | 3 | 45 | 55 | 448 | 428 |
| 1 year..... | 1,724 | - | 50 | 50 | 417 | 418 |
| One-half year or less..... | 1,090 | - | 43 | 57 | 438 | 438 |
| No response..... | 101,537 | - | - | - | - | - |
| Course Work | | | | | | |
| Algebra..... | 974,657 | 96 | 46 | 54 | 506 | 508 |
| Geometry..... | 951,031 | 94 | 46 | 54 | 511 | 514 |
| Trigonometry..... | 536,834 | 53 | 47 | 53 | 534 | 547 |
| Precalculus..... | 389,321 | 38 | 47 | 53 | 555 | 576 |
| Other mathematics courses..... | 240,080 | 24 | 44 | 56 | 484 | 482 |
| Calculus..... | 231,410 | 23 | 50 | 50 | 579 | 612 |
| Computer mathematics..... | 91,003 | 9 | 56 | 44 | 519 | 538 |
| Honors course taken..... | 286,219 | 29 | 47 | 53 | 576 | 598 |
| Natural sciences | | | | | | |
| Natural sciences | SAT I test takers | | Percent | | SAT I mean scores | |
| | Number | Percent | Male | Female | Verbal | Mathematics |
| Years of study | | | | | | |
| 4 or more years..... | 463,982 | 48 | 47 | 53 | 536 | 544 |
| 3 years..... | 367,245 | 38 | 44 | 56 | 492 | 488 |
| 2 years..... | 116,435 | 12 | 45 | 55 | 458 | 454 |
| 1 year..... | 17,652 | 2 | 46 | 54 | 430 | 438 |
| One-half year or less..... | 7,452 | 1 | 41 | 59 | 413 | 426 |
| No response..... | 111,959 | - | - | - | - | - |
| Course Work | | | | | | |
| Biology..... | 938,372 | 97 | 46 | 54 | 507 | 509 |
| Chemistry..... | 857,688 | 84 | 46 | 54 | 518 | 523 |
| Physics..... | 480,632 | 47 | 50 | 50 | 542 | 559 |
| Geology, earth science, or space science..... | 441,018 | 43 | 46 | 54 | 499 | 496 |
| Other sciences..... | 377,829 | 37 | 42 | 58 | 500 | 498 |
| Honors course taken..... | 281,448 | 29 | 45 | 55 | 577 | 587 |

NOTE: - = Not applicable.

SOURCE: College Board, 1996a. Profile of College-Bound Seniors National Report.

Appendix table 2-17. Advanced Placement (AP) candidates, by selected subjects and sex: 1996

Page 1 of 1

| AP exam subject | Total | Male | Female | Percent female |
|---|---------|--------|--------|----------------|
| Biology..... | 64,651 | 28,746 | 35,905 | 55 |
| Chemistry..... | 37,462 | 21,808 | 15,834 | 42 |
| Physics B..... | 18,644 | 12,195 | 6,449 | 35 |
| Physics C, mechanics..... | 11,072 | 8,158 | 2,914 | 26 |
| Physics C, (electronics and magnetism)..... | 5,662 | 4,392 | 1,270 | 22 |
| Calculus AB..... | 102,029 | 54,202 | 47,827 | 47 |
| Calculus BC..... | 20,823 | 13,006 | 7,817 | 38 |
| Computer science A..... | 6,488 | 5,217 | 1,271 | 20 |
| Computer science AB..... | 4,577 | 4,029 | 548 | 12 |
| Psychology..... | 14,308 | 4,986 | 9,322 | 65 |
| Economics-micro..... | 10,025 | 5,995 | 4,030 | 40 |
| Economics-macro..... | 13,252 | 7,691 | 5,561 | 42 |

NOTE: An AP exam candidate may have taken exams in more than one subject.

SOURCE: The College Board, 1996b. Advanced Placement Program National Summary Reports, pp. 3-5.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-18. Trends in average (mean) SAT mathematics and verbal scores, by race/ethnicity: 1991–1996

Page 1 of 1

| Race/ethnicity | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1991 to 1996 change | |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------|---------|
| | | | | | | | Number | Percent |
| Total | | | | | | | | |
| Number of students..... | 1,032,685 | 1,034,131 | 1,044,465 | 1,050,386 | 1,067,993 | 1,084,725 | 52,040 | 5 |
| SAT V - mean..... | 499 | 500 | 500 | 499 | 504 | 505 | 6 | - |
| SAT M - mean..... | 500 | 501 | 503 | 504 | 506 | 508 | 8 | - |
| White | | | | | | | | |
| Number of students..... | 687,231 | 680,806 | 670,965 | 662,107 | 674,343 | 681,053 | (6,178) | -1 |
| SAT V - mean..... | 518 | 519 | 520 | 520 | 525 | 526 | 8 | - |
| SAT M - mean..... | 513 | 515 | 517 | 519 | 521 | 523 | 10 | - |
| Asian American | | | | | | | | |
| Number of students..... | 76,703 | 78,387 | 78,693 | 81,097 | 81,514 | 84,319 | 7,616 | 10 |
| SAT V - mean..... | 485 | 487 | 489 | 489 | 492 | 496 | 11 | - |
| SAT M - mean..... | 548 | 551 | 553 | 553 | 555 | 558 | 10 | - |
| Black | | | | | | | | |
| Number of students..... | 100,209 | 99,126 | 102,939 | 102,679 | 103,872 | 106,573 | 6,364 | 6 |
| SAT V - mean..... | 427 | 428 | 429 | 428 | 432 | 434 | 7 | - |
| SAT M - mean..... | 419 | 419 | 421 | 421 | 422 | 422 | 3 | - |
| Mexican American | | | | | | | | |
| Number of students..... | 28,602 | 30,336 | 32,355 | 35,397 | 36,323 | 36,689 | 8,087 | 28 |
| SAT V - mean..... | 454 | 449 | 451 | 448 | 453 | 455 | 1 | - |
| SAT M - mean..... | 459 | 457 | 459 | 458 | 458 | 459 | 0 | - |
| Puerto Rican ¹ | | | | | | | | |
| Number of students | 12,065 | 12,091 | 12,645 | 13,036 | 13,056 | 13,103 | 1,038 | 9 |
| SAT V - mean..... | 436 | 442 | 443 | 444 | 448 | 452 | 16 | - |
| SAT M - mean..... | 439 | 438 | 440 | 442 | 444 | 445 | 6 | - |
| Latin American | | | | | | | | |
| Number of students..... | 25,584 | 26,766 | 28,420 | 29,395 | 30,713 | 32,193 | 6,609 | 26 |
| SAT V - mean..... | 458 | 459 | 460 | 460 | 465 | 465 | 7 | - |
| SAT M - mean..... | 462 | 463 | 463 | 464 | 468 | 466 | 4 | - |
| American Indian | | | | | | | | |
| Number of students..... | 7,843 | 7,412 | 7,488 | 8,150 | 8,936 | 8,737 | 894 | 11 |
| SAT V - mean..... | 470 | 472 | 477 | 473 | 480 | 483 | 13 | - |
| SAT M - mean..... | 468 | 471 | 476 | 470 | 476 | 477 | 9 | - |
| Other | | | | | | | | |
| Number of students..... | 16,300 | 17,771 | 19,614 | 22,198 | 25,113 | 28,099 | 11,799 | 72 |
| SAT V - mean..... | 486 | 491 | 497 | 500 | 507 | 511 | 25 | - |
| SAT M - mean..... | 492 | 498 | 501 | 504 | 510 | 512 | 20 | - |

¹ Excludes students in Puerto Rico.

NOTES: - = not applicable. V = verbal, M = mathematics. Total includes persons of unknown race/ethnicity.

SOURCE: College Board, 1996 unpublished tabulations.

Appendix table 2-19. Trends in average ACT composite scores, by race/ethnicity: 1991-1996

Page 1 of 1

| Race/ethnicity | Number | Mean ACT score |
|---|---------|----------------|
| Total | | |
| 1991..... | 796,983 | 20.6 |
| 1992..... | 832,217 | 20.6 |
| 1993..... | 875,603 | 20.7 |
| 1994..... | 891,714 | 20.8 |
| 1995..... | 945,369 | 20.8 |
| 1996..... | 924,663 | 20.9 |
| White | | |
| 1991..... | 588,060 | 21.3 |
| 1992..... | 604,469 | 21.3 |
| 1993..... | 625,242 | 21.4 |
| 1994..... | 623,366 | 21.4 |
| 1995..... | 650,664 | 21.5 |
| 1996..... | 654,377 | 21.6 |
| Asian American/Pacific Islander | | |
| 1991..... | 20,854 | 21.6 |
| 1992..... | 22,771 | 21.6 |
| 1993..... | 24,754 | 21.7 |
| 1994..... | 26,168 | 21.7 |
| 1995..... | 27,784 | 21.6 |
| 1996..... | 27,847 | 21.6 |
| African-American/Black | | |
| 1991..... | 72,681 | 17.0 |
| 1992..... | 75,356 | 17.0 |
| 1993..... | 80,401 | 17.1 |
| 1994..... | 81,806 | 17.0 |
| 1995..... | 89,155 | 17.1 |
| 1996..... | 87,630 | 17.0 |
| Mexican American/Chicano | | |
| 1991..... | 23,837 | 18.4 |
| 1992..... | 26,163 | 18.4 |
| 1993..... | 27,713 | 18.5 |
| 1994..... | 29,558 | 18.4 |
| 1995..... | 24,431 | 18.6 |
| 1996..... | 21,345 | 18.7 |
| Puerto Rican ¹ /Cuban/Other Hispanic | | |
| 1991..... | 11,135 | 19.3 |
| 1992..... | 13,013 | 19.3 |
| 1993..... | 13,894 | 19.3 |
| 1994..... | 15,119 | 19.3 |
| 1995..... | 24,054 | 18.7 |
| 1996..... | 25,857 | 18.9 |
| American Indian/Alaskan Native | | |
| 1991..... | 9,358 | 18.2 |
| 1992..... | 9,784 | 18.1 |
| 1993..... | 10,384 | 18.4 |
| 1994..... | 11,026 | 18.5 |
| 1995..... | 11,361 | 18.6 |
| 1996..... | 11,580 | 18.8 |

¹ Excludes students in Puerto Rico, because test is not given there.

SOURCE: American College Testing. 1996. Results, Summary Reports.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-20. Selected characteristics of persons who took the SAT: 1996

Page 1 of 1

| Sex and race/ethnicity | Took SAT Number | Have a parent with college degree | | Took PSAT | |
|-------------------------------------|--------------------|--------------------------------------|---------|-----------|---------|
| | | Number | Percent | Number | Percent |
| Total..... | 1,084,725 | 519,515 | 48 | 765,384 | 71 |
| Women..... | 580,127 | 267,776 | 46 | 429,309 | 74 |
| Men..... | 504,598 | 251,739 | 50 | 336,075 | 67 |
| White..... | 681,053 | 384,478 | 56 | 541,748 | 80 |
| Women..... | 366,985 | 198,079 | 54 | 300,520 | 82 |
| Men..... | 314,068 | 186,399 | 59 | 241,228 | 77 |
| Asian and Pacific Islander..... | 84,319 | 48,239 | 57 | 62,564 | 74 |
| Women..... | 42,956 | 23,879 | 56 | 33,046 | 77 |
| Men..... | 41,363 | 24,360 | 59 | 29,518 | 71 |
| Black..... | 106,573 | 36,185 | 34 | 69,734 | 65 |
| Women..... | 62,840 | 19,683 | 31 | 43,631 | 69 |
| Men..... | 43,733 | 16,502 | 38 | 26,103 | 60 |
| Hispanic, total..... | 81,985 | 26,597 | 32 | 54,359 | 66 |
| Women..... | 46,131 | 13,794 | 30 | 31,578 | 68 |
| Men..... | 35,854 | 12,803 | 36 | 22,781 | 64 |
| Puerto Rican ¹ | 13,103 | 4,868 | 37 | 8,653 | 66 |
| Women..... | 7,478 | 2,531 | 34 | 5,044 | 67 |
| Men..... | 5,625 | 2,337 | 42 | 3,609 | 64 |
| Mexican-American..... | 36,689 | 8,941 | 24 | 23,928 | 65 |
| Women..... | 20,532 | 4,596 | 22 | 13,866 | 68 |
| Men..... | 16,157 | 4,345 | 27 | 10,062 | 62 |
| Other Hispanic..... | 32,193 | 12,788 | 40 | 21,778 | 68 |
| Women..... | 18,121 | 6,667 | 37 | 12,668 | 70 |
| Men..... | 14,072 | 6,121 | 43 | 9,110 | 65 |
| American Indian/Alaskan Native..... | 8,737 | 3,713 | 42 | 5,772 | 66 |
| Women..... | 4,673 | 1,878 | 40 | 3,241 | 69 |
| Men..... | 4,064 | 1,835 | 45 | 2,531 | 62 |
| Other..... | 28,099 | 15,364 | 55 | 19,862 | 71 |
| Women..... | 15,563 | 8,042 | 52 | 11,379 | 73 |
| Men..... | 12,536 | 7,322 | 58 | 8,483 | 68 |
| No response..... | 93,959 | - | - | - | - |
| Women..... | 40,979 | - | - | - | - |
| Men..... | 52,980 | - | - | - | - |

¹ Excludes students in Puerto Rico.

NOTE: - = Not applicable.

SOURCE: The College Board, 1996 unpublished tabulations.

Appendix table 2-21. Average ACT composite scores, by type of high school program, race/ethnicity, and annual family income: 1996

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| Race/ethnicity and type of program ¹ | Annual family income | | | | | |
|---|----------------------|-----------|-------------------|-----------|------------------|-----------|
| | Less than \$18,000 | | \$18,000-\$35,999 | | \$36,000 or more | |
| | Number | ACT score | Number | ACT score | Number | ACT score |
| Total ² | | | | | | |
| Total ³ | 104,195 | 18.5 | 229,613 | 20.1 | 475,456 | 21.9 |
| Core | 52,650 | 19.7 | 128,846 | 21.2 | 306,653 | 22.8 |
| Less than core | 50,010 | 17.4 | 98,734 | 18.6 | 165,497 | 20.1 |
| White | | | | | | |
| Total | 50,187 | 20.1 | 157,413 | 20.9 | 393,479 | 22.1 |
| Core | 25,080 | 21.5 | 88,415 | 22.0 | 254,197 | 23.0 |
| Less than core | 24,727 | 18.8 | 68,054 | 19.4 | 137,138 | 20.4 |
| Asian American/Pacific Islander | | | | | | |
| Total | 4,775 | 18.7 | 7,486 | 20.6 | 13,464 | 23.3 |
| Core | 3,041 | 19.5 | 5,186 | 21.4 | 10,033 | 23.8 |
| Less than core | 1,643 | 17.1 | 2,172 | 18.9 | 3,221 | 21.6 |
| African-American/Black | | | | | | |
| Total | 26,687 | 16.2 | 30,271 | 16.9 | 23,034 | 18.2 |
| Core | 13,563 | 17.0 | 16,615 | 17.7 | 14,172 | 19.0 |
| Less than core | 12,888 | 15.4 | 13,389 | 15.8 | 8,707 | 16.9 |
| American Indian/Alaskan Native | | | | | | |
| Total | 2,535 | 17.3 | 3,993 | 18.5 | 4,117 | 20.1 |
| Core | 1,033 | 18.8 | 1,938 | 19.6 | 2,279 | 21.2 |
| Less than core | 1,306 | 16.6 | 1,922 | 17.5 | 1,748 | 18.8 |
| Mexican American/Pacific Islander | | | | | | |
| Total | 5,340 | 17.4 | 7,598 | 18.4 | 7,020 | 20.1 |
| Core | 2,739 | 18.4 | 4,060 | 19.4 | 4,253 | 21.1 |
| Less than core | 2,562 | 16.3 | 3,486 | 17.2 | 2,729 | 18.6 |
| Puerto Rican ⁴ /Cuban/Other Hispanic | | | | | | |
| Total | 6,277 | 17.2 | 8,342 | 18.5 | 9,160 | 20.6 |
| Core | 3,149 | 18.3 | 4,681 | 19.4 | 5,916 | 21.4 |
| Less than core | 2,943 | 16.1 | 3,512 | 17.2 | 3,102 | 18.9 |

¹ Type of high school program is divided into *Core* and *Less than core* programs. Core programs are defined by ACT as 4 years of English and 3 years each of mathematics, natural sciences, and social sciences.

² Excludes persons not included in the racial/ethnic groups below.

³ Excludes persons not classified by type of program.

⁴ This does not include students in Puerto Rico, because test is not given there.

SOURCE: American College Testing. 1996. Results, Summary Reports.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 2-22. Advanced Placement (AP) candidates, by selected subjects and race/ethnicity: 1996

Page 1 of 1

| Selected science/mathematics AP subject | Total, all candidates | Underrepresented minorities | | | | | | |
|---|-----------------------|--|----------------|---------------------------|-----------------------|-------------------------|------------------------------------|---|
| | | American Indian/Alaskan Native (2,491) | Black (22,373) | Hispanic | | | Total under-represented minorities | Percentage under-represented minorities |
| | | | | Mexican American (20,318) | Puerto Rican (13,527) | Other Hispanic (18,476) | | |
| Biology..... | 64,651 | 281 | 2,619 | 1,066 | 361 | 1,414 | 5,741 | 9 |
| Chemistry..... | 37,642 | 151 | 1,286 | 633 | 132 | 634 | 2,836 | 8 |
| Physics B..... | 18,644 | 61 | 529 | 298 | 74 | 402 | 1,364 | 7 |
| Physics C (mechanics)..... | 11,072 | 34 | 236 | 161 | 39 | 220 | 690 | 6 |
| Physics C (electronics and magnetism).... | 5,662 | 14 | 99 | 55 | 18 | 95 | 281 | 5 |
| Calculus AB..... | 102,029 | 360 | 3,689 | 2,310 | 400 | 1,985 | 8,744 | 9 |
| Calculus BC..... | 20,823 | 44 | 353 | 174 | 52 | 326 | 949 | 5 |
| Computer science A..... | 6,488 | 28 | 283 | 115 | 42 | 167 | 635 | 10 |
| Computer science AB..... | 4,577 | 22 | 80 | 50 | 18 | 75 | 245 | 5 |
| Psychology..... | 14,308 | 64 | 538 | 255 | 73 | 415 | 1,345 | 9 |
| Economics-micro..... | 10,025 | 40 | 241 | 256 | 42 | 204 | 783 | 8 |
| Economics-macro..... | 13,252 | 45 | 419 | 409 | 68 | 479 | 1,420 | 11 |

NOTE: Numbers in parentheses indicate the total persons in each group who took any AP test in 1996.

SOURCE: The College Board, 1996b. Advanced Placement Program National Summary Reports, p. 3.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-1. Number of earned bachelor's degrees, by field and by race/ethnicity of recipient: 1989-1995

| Field | Page 1 of 5 | | | | | | |
|---|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| Total, all recipients | | | | | | | |
| Total science and engineering..... | 337,431 | 345,793 | 356,785 | 376,933 | 388,435 | 395,380 | 399,809 |
| Engineering..... | 66,947 | 64,703 | 62,186 | 61,898 | 62,670 | 62,962 | 63,330 |
| Sciences..... | 270,484 | 281,090 | 294,599 | 315,035 | 325,765 | 332,418 | 336,479 |
| Natural sciences..... | 109,350 | 105,234 | 105,595 | 111,108 | 116,742 | 122,792 | 129,447 |
| Physical science ¹ | 17,329 | 16,203 | 16,407 | 17,076 | 17,691 | 18,525 | 19,375 |
| Mathematical science..... | 15,314 | 14,674 | 14,784 | 14,851 | 14,870 | 14,431 | 13,759 |
| Computer science..... | 30,963 | 27,695 | 25,410 | 24,854 | 24,477 | 24,458 | 24,662 |
| Biological science..... | 36,949 | 38,040 | 40,351 | 43,835 | 47,877 | 52,213 | 56,804 |
| Agricultural science..... | 8,795 | 8,622 | 8,643 | 10,492 | 11,827 | 13,165 | 14,847 |
| Social sciences..... | 161,134 | 175,856 | 189,004 | 203,927 | 209,023 | 209,626 | 207,032 |
| Social science..... | 112,180 | 121,838 | 130,111 | 139,884 | 141,772 | 139,858 | 134,431 |
| Psychology..... | 48,954 | 54,018 | 58,893 | 64,043 | 67,251 | 69,768 | 72,601 |
| Non-S&E ² | 692,740 | 716,358 | 751,212 | 773,139 | 790,843 | 787,761 | 774,627 |
| Grand total..... | 1,030,171 | 1,062,151 | 1,107,997 | 1,150,072 | 1,179,278 | 1,183,141 | 1,174,436 |
| U.S. citizens and permanent residents, total ³ | | | | | | | |
| Total science and engineering..... | 325,108 | 333,475 | 344,061 | 364,695 | 374,633 | 381,451 | 385,055 |
| Engineering..... | 61,875 | 59,786 | 57,604 | 57,675 | 58,165 | 58,422 | 58,520 |
| Sciences..... | 263,233 | 273,689 | 286,457 | 307,020 | 316,468 | 323,029 | 326,535 |
| Natural sciences..... | 104,928 | 100,908 | 101,039 | 106,739 | 111,656 | 117,843 | 124,297 |
| Physical science ¹ | 16,724 | 15,608 | 15,799 | 16,469 | 16,927 | 17,812 | 18,652 |
| Mathematical science..... | 14,771 | 14,150 | 14,206 | 14,259 | 14,318 | 13,869 | 13,166 |
| Computer science..... | 28,828 | 25,629 | 23,373 | 22,880 | 22,273 | 22,185 | 22,367 |
| Biological science..... | 36,076 | 37,173 | 39,288 | 42,842 | 46,660 | 51,058 | 55,523 |
| Agricultural science..... | 8,529 | 8,348 | 8,373 | 10,289 | 11,478 | 12,919 | 14,589 |
| Social sciences..... | 158,305 | 172,781 | 185,418 | 200,281 | 204,812 | 205,186 | 202,238 |
| Social science..... | 109,862 | 119,288 | 127,216 | 136,902 | 138,391 | 136,273 | 130,579 |
| Psychology..... | 48,443 | 53,493 | 58,202 | 63,379 | 66,421 | 68,913 | 71,659 |
| Non-S&E ² | 678,606 | 702,123 | 734,279 | 756,830 | 772,274 | 767,463 | 752,369 |
| Grand total..... | 1,003,714 | 1,035,598 | 1,078,340 | 1,121,525 | 1,146,907 | 1,148,914 | 1,137,424 |

See explanatory information and SOURCES at end of table.

Appendix table 3-1. Number of earned bachelor's degrees, by field and by race/ethnicity of recipient: 1989-1995

Page 2 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| White, non-Hispanics | | | | | | | |
| Total science and engineering..... | 266,862 | 270,225 | 278,190 | 292,614 | 297,171 | 297,616 | 294,773 |
| Engineering..... | 50,081 | 47,494 | 45,162 | 45,026 | 44,853 | 44,687 | 43,726 |
| Sciences..... | 216,781 | 222,731 | 233,028 | 247,588 | 252,318 | 252,929 | 251,047 |
| Natural sciences..... | 84,578 | 80,210 | 80,111 | 84,133 | 87,401 | 91,196 | 94,575 |
| Physical science ¹ | 14,238 | 13,055 | 13,145 | 13,678 | 13,941 | 14,616 | 14,952 |
| Mathematical science..... | 12,287 | 11,765 | 11,649 | 11,723 | 11,669 | 11,089 | 10,343 |
| Computer science..... | 21,711 | 18,918 | 17,349 | 16,844 | 16,155 | 15,816 | 15,532 |
| Biological science..... | 28,404 | 28,814 | 30,264 | 32,506 | 35,080 | 37,942 | 40,628 |
| Agricultural science..... | 7,938 | 7,658 | 7,704 | 9,382 | 10,556 | 11,733 | 13,120 |
| Social sciences..... | 132,203 | 142,521 | 152,917 | 163,455 | 164,917 | 161,733 | 156,472 |
| Social science..... | 91,697 | 98,385 | 104,783 | 111,389 | 111,154 | 106,863 | 100,558 |
| Psychology..... | 40,506 | 44,136 | 48,134 | 52,066 | 53,763 | 54,870 | 55,914 |
| Non-S&E ² | 573,464 | 586,461 | 614,173 | 628,839 | 634,432 | 620,508 | 598,012 |
| Grand total..... | 840,326 | 856,686 | 892,363 | 921,453 | 931,603 | 918,124 | 892,785 |
| Asians | | | | | | | |
| Total science and engineering..... | 19,138 | 19,437 | 20,552 | 22,635 | 24,504 | 26,420 | 29,128 |
| Engineering..... | 6,075 | 6,012 | 6,220 | 6,265 | 6,407 | 6,516 | 6,785 |
| Sciences..... | 13,063 | 13,425 | 14,332 | 16,370 | 18,097 | 19,904 | 22,343 |
| Natural sciences | 7,260 | 7,326 | 7,595 | 8,496 | 9,524 | 10,401 | 12,007 |
| Physical science ¹ | 922 | 937 | 983 | 1,001 | 1,098 | 1,096 | 1,347 |
| Mathematical science..... | 1,019 | 874 | 915 | 857 | 915 | 926 | 965 |
| Computer science..... | 2,268 | 2,144 | 2,010 | 2,082 | 2,245 | 2,247 | 2,365 |
| Biological science..... | 2,907 | 3,245 | 3,559 | 4,402 | 5,103 | 5,959 | 7,043 |
| Agricultural science..... | 144 | 126 | 128 | 154 | 163 | 173 | 287 |
| Social sciences..... | 5,803 | 6,099 | 6,737 | 7,874 | 8,573 | 9,503 | 10,336 |
| Social science..... | 4,228 | 4,469 | 4,852 | 5,724 | 6,035 | 6,726 | 7,005 |
| Psychology..... | 1,575 | 1,630 | 1,885 | 2,150 | 2,538 | 2,777 | 3,331 |
| Non-S&E ² | 18,435 | 18,590 | 21,173 | 23,981 | 26,083 | 28,255 | 30,167 |
| Grand total..... | 37,573 | 38,027 | 41,725 | 46,616 | 50,587 | 54,675 | 59,295 |

See explanatory information and SOURCES at end of table.

Appendix table 3-1. Number of earned bachelor's degrees, by field and by race/ethnicity of recipient: 1989-1995

| Field | Page 3 of 5 | | | | | | |
|-------------------------------------|-------------|---------|---------|---------|---------|---------|---------|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| Underrepresented minorities, total | | | | | | | |
| Total science and engineering..... | 31,950 | 33,419 | 36,682 | 41,383 | 44,682 | 48,822 | 51,844 |
| Engineering..... | 4,805 | 4,729 | 4,953 | 5,277 | 5,714 | 6,020 | 6,717 |
| Sciences..... | 27,145 | 28,690 | 31,729 | 36,106 | 38,968 | 42,802 | 45,127 |
| Natural sciences..... | 10,830 | 10,530 | 10,960 | 11,722 | 12,510 | 13,782 | 14,815 |
| Physical science ¹ | 1,322 | 1,245 | 1,355 | 1,425 | 1,528 | 1,737 | 1,932 |
| Mathematical science..... | 1,218 | 1,178 | 1,334 | 1,432 | 1,490 | 1,594 | 1,589 |
| Computer science..... | 3,742 | 3,416 | 3,292 | 3,342 | 3,390 | 3,611 | 3,915 |
| Biological science..... | 4,151 | 4,243 | 4,551 | 5,043 | 5,602 | 6,127 | 6,606 |
| Agricultural science..... | 397 | 448 | 428 | 480 | 500 | 713 | 773 |
| Social sciences..... | 16,315 | 18,160 | 20,769 | 24,384 | 26,458 | 29,020 | 30,312 |
| Social science..... | 11,212 | 12,394 | 14,100 | 16,647 | 17,918 | 19,400 | 19,621 |
| Psychology..... | 5,103 | 5,766 | 6,669 | 7,737 | 8,540 | 9,620 | 10,691 |
| Non-S&E ² | 70,215 | 73,958 | 81,840 | 88,065 | 95,404 | 102,241 | 106,588 |
| Grand total..... | 102,165 | 107,377 | 118,522 | 129,448 | 140,086 | 151,063 | 158,432 |
| Black, non-Hispanics | | | | | | | |
| Total science and engineering..... | 17,385 | 18,230 | 19,987 | 22,431 | 24,421 | 26,289 | 27,528 |
| Engineering..... | 2,067 | 2,072 | 2,229 | 2,362 | 2,577 | 2,659 | 2,845 |
| Sciences..... | 15,318 | 16,158 | 17,758 | 20,069 | 21,844 | 23,630 | 24,683 |
| Natural sciences..... | 6,005 | 5,782 | 5,834 | 6,401 | 6,972 | 7,559 | 8,021 |
| Physical science ¹ | 697 | 650 | 753 | 816 | 836 | 921 | 1,034 |
| Mathematical science..... | 792 | 720 | 811 | 904 | 965 | 992 | 995 |
| Computer science..... | 2,457 | 2,247 | 1,997 | 2,090 | 2,213 | 2,398 | 2,498 |
| Biological science..... | 1,916 | 1,994 | 2,111 | 2,385 | 2,739 | 2,980 | 3,231 |
| Agricultural science..... | 143 | 171 | 162 | 206 | 219 | 268 | 263 |
| Social sciences..... | 9,313 | 10,376 | 11,924 | 13,668 | 14,872 | 16,071 | 16,662 |
| Social science..... | 6,570 | 7,226 | 8,236 | 9,489 | 10,254 | 10,835 | 10,921 |
| Psychology..... | 2,743 | 3,150 | 3,688 | 4,179 | 4,618 | 5,236 | 5,741 |
| Non-S&E ² | 39,452 | 41,071 | 45,022 | 48,880 | 52,246 | 56,027 | 57,759 |
| Grand total..... | 56,837 | 59,301 | 65,009 | 71,311 | 76,667 | 82,316 | 85,287 |

See explanatory information and SOURCES at end of table.

Appendix table 3-1. Number of earned bachelor's degrees, by field and by race/ethnicity of recipient: 1989-1995

Page 4 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Hispanics | | | | | | | |
| Total science and engineering..... | 13,327 | 13,918 | 15,351 | 17,391 | 18,442 | 20,529 | 22,190 |
| Engineering..... | 2,561 | 2,511 | 2,566 | 2,733 | 2,961 | 3,143 | 3,651 |
| Sciences..... | 10,766 | 11,407 | 12,785 | 14,658 | 15,481 | 17,386 | 18,539 |
| Natural sciences..... | 4,417 | 4,357 | 4,705 | 4,892 | 5,034 | 5,648 | 6,119 |
| Physical science ¹ | 563 | 522 | 533 | 546 | 599 | 733 | 800 |
| Mathematical science..... | 373 | 413 | 480 | 482 | 470 | 543 | 536 |
| Computer science..... | 1,195 | 1,085 | 1,215 | 1,173 | 1,096 | 1,135 | 1,307 |
| Biological science..... | 2,090 | 2,119 | 2,264 | 2,477 | 2,652 | 2,901 | 3,090 |
| Agricultural science..... | 196 | 218 | 213 | 214 | 217 | 336 | 386 |
| Social sciences..... | 6,349 | 7,050 | 8,080 | 9,766 | 10,447 | 11,738 | 12,420 |
| Social science..... | 4,197 | 4,645 | 5,334 | 6,519 | 6,860 | 7,748 | 7,877 |
| Psychology..... | 2,152 | 2,405 | 2,746 | 3,247 | 3,587 | 3,990 | 4,543 |
| Non-S&E ² | 28,034 | 29,946 | 33,676 | 35,616 | 39,403 | 42,154 | 44,501 |
| Grand total..... | 41,361 | 43,864 | 49,027 | 53,007 | 57,845 | 62,683 | 66,691 |
| American Indians or Alaskan Natives | | | | | | | |
| Total science and engineering..... | 1,238 | 1,271 | 1,344 | 1,561 | 1,819 | 2,004 | 2,126 |
| Engineering..... | 177 | 146 | 158 | 182 | 176 | 218 | 221 |
| Sciences..... | 1,061 | 1,125 | 1,186 | 1,379 | 1,643 | 1,786 | 1,905 |
| Natural sciences..... | 408 | 391 | 421 | 429 | 504 | 575 | 675 |
| Physical science ¹ | 62 | 73 | 69 | 63 | 93 | 83 | 98 |
| Mathematical science..... | 53 | 45 | 43 | 46 | 55 | 59 | 58 |
| Computer science..... | 90 | 84 | 80 | 79 | 81 | 78 | 110 |
| Biological science..... | 145 | 130 | 176 | 181 | 211 | 246 | 285 |
| Agricultural science..... | 58 | 59 | 53 | 60 | 64 | 109 | 124 |
| Social sciences..... | 653 | 734 | 765 | 950 | 1,139 | 1,211 | 1,230 |
| Social science..... | 445 | 523 | 530 | 639 | 804 | 817 | 823 |
| Psychology..... | 208 | 211 | 235 | 311 | 335 | 394 | 407 |
| Non-S&E ² | 2,729 | 2,941 | 3,142 | 3,569 | 3,755 | 4,060 | 4,328 |
| Grand total..... | 3,967 | 4,212 | 4,486 | 5,130 | 5,574 | 6,064 | 6,454 |

See explanatory information and SOURCES at end of table.

Appendix table 3-1. Number of earned bachelor's degrees, by field and by race/ethnicity of recipient: 1989-1995

Page 5 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|---|--------|--------|--------|--------|--------|--------|
| | U.S. citizens and permanent residents, unknown race/ethnicity | | | | | | |
| Total science and engineering..... | 7,158 | 10,394 | 8,637 | 8,063 | 8,276 | 8,593 | 9,310 |
| Engineering..... | 914 | 1,551 | 1,269 | 1,107 | 1,191 | 1,199 | 1,292 |
| Sciences..... | 6,244 | 8,843 | 7,368 | 6,956 | 7,085 | 7,394 | 8,018 |
| Natural sciences..... | 2,260 | 2,842 | 2,373 | 2,388 | 2,221 | 2,464 | 2,900 |
| Physical science ¹ | 242 | 371 | 316 | 365 | 360 | 363 | 421 |
| Mathematical science..... | 247 | 333 | 308 | 247 | 244 | 260 | 269 |
| Computer science..... | 1,107 | 1,151 | 722 | 612 | 483 | 511 | 555 |
| Biological science..... | 614 | 871 | 914 | 891 | 875 | 1,030 | 1,246 |
| Agricultural science..... | 50 | 116 | 113 | 273 | 259 | 300 | 409 |
| Social sciences..... | 3,984 | 6,001 | 4,995 | 4,568 | 4,864 | 4,930 | 5,118 |
| Social science..... | 2,725 | 4,040 | 3,481 | 3,142 | 3,284 | 3,284 | 3,395 |
| Psychology..... | 1,259 | 1,961 | 1,514 | 1,426 | 1,580 | 1,646 | 1,723 |
| Non-S&E ² | 16,492 | 23,114 | 17,093 | 15,945 | 16,355 | 16,459 | 17,602 |
| Grand total..... | 23,650 | 33,508 | 25,730 | 24,008 | 24,631 | 25,052 | 26,912 |
| Nonresident aliens ⁴ | | | | | | | |
| Total science and engineering..... | 12,323 | 12,318 | 12,724 | 12,238 | 13,802 | 13,929 | 14,754 |
| Engineering..... | 5,072 | 4,917 | 4,582 | 4,223 | 4,505 | 4,540 | 4,810 |
| Sciences..... | 7,251 | 7,401 | 8,142 | 8,015 | 9,297 | 9,389 | 9,944 |
| Natural sciences..... | 4,422 | 4,326 | 4,556 | 4,369 | 5,086 | 4,949 | 5,150 |
| Physical science ¹ | 605 | 595 | 608 | 607 | 764 | 713 | 723 |
| Mathematical science..... | 543 | 524 | 578 | 592 | 552 | 562 | 593 |
| Computer science..... | 2,135 | 2,066 | 2,037 | 1,974 | 2,204 | 2,273 | 2,295 |
| Biological science..... | 873 | 867 | 1,063 | 993 | 1,217 | 1,155 | 1,281 |
| Agricultural science..... | 266 | 274 | 270 | 203 | 349 | 246 | 258 |
| Social sciences..... | 2,829 | 3,075 | 3,586 | 3,646 | 4,211 | 4,440 | 4,794 |
| Social science..... | 2,318 | 2,550 | 2,895 | 2,982 | 3,381 | 3,585 | 3,852 |
| Psychology..... | 511 | 525 | 691 | 664 | 830 | 855 | 942 |
| Non-S&E ² | 14,134 | 14,235 | 16,933 | 16,309 | 18,569 | 20,298 | 22,258 |
| Grand total..... | 26,457 | 26,553 | 29,657 | 28,547 | 32,371 | 34,227 | 37,012 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1989-1995.

Appendix table 3-2. Bachelor's degrees awarded to women, by major field group: 1966-1995

Page 1 of 3

| Year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------|------------|--------------------------------|-------------|-------------------|--|--------------------------------|-------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematical/computer sciences | Biological/agricultural | Psychology | Social sciences | |
| 1966..... | 222,971 | 45,634 | 146 | 2,172 | 161 | 6,702 | 7,465 | 6,928 | 22,060 | 177,337 |
| 1967..... | 238,133 | 50,787 | 184 | 2,205 | 197 | 7,334 | 7,948 | 7,778 | 25,141 | 187,346 |
| 1968..... | 277,116 | 61,397 | 216 | 2,435 | 234 | 8,841 | 8,966 | 10,130 | 30,575 | 215,719 |
| 1969..... | 321,138 | 72,917 | 312 | 2,661 | 291 | 10,348 | 10,090 | 12,700 | 36,515 | 248,221 |
| 1970..... | 344,465 | 79,702 | 337 | 2,626 | 343 | 10,516 | 10,700 | 14,717 | 40,463 | 264,763 |
| 1971..... | 367,687 | 85,039 | 361 | 2,631 | 383 | 9,818 | 11,016 | 17,037 | 43,793 | 282,648 |
| 1972..... | 390,479 | 90,037 | 492 | 2,653 | 495 | 9,784 | 11,777 | 20,154 | 44,682 | 300,442 |
| 1973..... | 408,738 | 95,995 | 576 | 2,589 | 532 | 9,985 | 13,779 | 22,986 | 45,548 | 312,743 |
| 1974..... | 423,469 | 102,578 | 698 | 2,767 | 768 | 9,719 | 16,732 | 26,407 | 45,487 | 320,891 |
| 1975..... | 423,239 | 102,814 | 845 | 3,011 | 827 | 8,656 | 19,384 | 27,103 | 42,988 | 320,425 |
| 1976..... | 425,894 | 103,921 | 1,317 | 3,217 | 922 | 7,678 | 21,836 | 27,376 | 41,575 | 321,973 |
| 1977..... | 429,107 | 104,993 | 2,044 | 3,377 | 1,174 | 7,488 | 23,250 | 27,102 | 40,558 | 324,114 |
| 1978..... | 439,135 | 107,667 | 3,482 | 3,690 | 1,294 | 7,110 | 24,363 | 26,540 | 41,188 | 331,468 |
| 1979..... | 449,946 | 109,915 | 4,881 | 3,899 | 1,387 | 7,421 | 24,787 | 26,363 | 41,177 | 340,031 |
| 1980..... | 462,501 | 113,480 | 5,952 | 4,185 | 1,462 | 8,247 | 25,011 | 26,923 | 41,700 | 349,021 |
| 1981..... | 472,541 | 115,815 | 7,063 | 4,309 | 1,666 | 9,734 | 24,657 | 26,917 | 41,469 | 356,726 |
| 1982..... | 486,500 | 121,399 | 8,275 | 4,526 | 1,807 | 12,173 | 24,313 | 27,783 | 42,522 | 365,101 |
| 1983..... | 497,284 | 123,191 | 9,652 | 4,611 | 1,848 | 14,542 | 24,279 | 27,597 | 40,662 | 374,093 |
| 1984..... | 499,595 | 125,134 | 10,729 | 4,656 | 1,934 | 18,053 | 23,243 | 27,426 | 39,093 | 374,461 |
| 1985..... | 504,217 | 128,871 | 11,246 | 4,836 | 1,861 | 21,525 | 23,140 | 27,422 | 38,841 | 375,346 |
| 1986..... | 510,061 | 130,662 | 11,138 | 4,696 | 1,354 | 22,806 | 22,953 | 28,246 | 39,469 | 379,399 |
| 1987..... | 518,529 | 131,545 | 11,404 | 4,672 | 1,060 | 21,571 | 22,403 | 29,796 | 40,639 | 386,984 |
| 1988..... | 524,797 | 130,933 | 10,779 | 4,582 | 847 | 18,765 | 22,375 | 31,794 | 41,791 | 393,864 |
| 1989..... | 542,605 | 133,483 | 10,188 | 4,371 | 801 | 16,595 | 21,679 | 34,663 | 45,186 | 409,122 |
| 1990..... | 566,284 | 140,012 | 9,973 | 4,319 | 775 | 15,185 | 22,401 | 38,619 | 48,740 | 426,272 |
| 1991..... | 599,045 | 148,347 | 9,665 | 4,425 | 782 | 14,494 | 23,776 | 42,738 | 52,467 | 450,698 |
| 1992..... | 624,677 | 159,486 | 9,636 | 4,586 | 1,024 | 14,196 | 26,720 | 46,903 | 56,421 | 465,191 |
| 1993..... | 641,742 | 165,720 | 9,981 | 4,764 | 1,050 | 13,950 | 29,182 | 49,222 | 57,571 | 476,022 |
| 1994..... | 646,080 | 170,977 | 10,403 | 5,067 | 1,203 | 13,788 | 31,921 | 51,019 | 57,576 | 475,103 |
| 1995..... | 643,290 | 175,931 | 10,950 | 5,292 | 1,524 | 13,554 | 35,555 | 52,963 | 56,093 | 467,359 |

See explanatory information and SOURCES at end of table.

Appendix table 3-2. Bachelor's degrees awarded to women, by major field group: 1966-1995

[Percentage distribution of bachelor's degrees awarded to women]

Page 2 of 3

| Year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------|------------|--------------------------------|-------------|-------------------|--|--------------------------------|-------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematical/computer sciences | Biological/agricultural | Psychology | Social sciences | |
| 1966..... | 100.0 | 20.5 | 0.1 | 1.0 | 0.1 | 3.0 | 3.3 | 3.1 | 9.9 | 79.5 |
| 1967..... | 100.0 | 21.3 | 0.1 | 0.9 | 0.1 | 3.1 | 3.3 | 3.3 | 10.6 | 78.7 |
| 1968..... | 100.0 | 22.2 | 0.1 | 0.9 | 0.1 | 3.2 | 3.2 | 3.7 | 11.0 | 77.8 |
| 1969..... | 100.0 | 22.7 | 0.1 | 0.8 | 0.1 | 3.2 | 3.1 | 4.0 | 11.4 | 77.3 |
| 1970..... | 100.0 | 23.1 | 0.1 | 0.8 | 0.1 | 3.1 | 3.1 | 4.3 | 11.7 | 76.9 |
| 1971..... | 100.0 | 23.1 | 0.1 | 0.7 | 0.1 | 2.7 | 3.0 | 4.6 | 11.9 | 76.9 |
| 1972..... | 100.0 | 23.1 | 0.1 | 0.7 | 0.1 | 2.5 | 3.0 | 5.2 | 11.4 | 76.9 |
| 1973..... | 100.0 | 23.5 | 0.1 | 0.6 | 0.1 | 2.4 | 3.4 | 5.6 | 11.1 | 76.5 |
| 1974..... | 100.0 | 24.2 | 0.2 | 0.7 | 0.2 | 2.3 | 4.0 | 6.2 | 10.7 | 75.8 |
| 1975..... | 100.0 | 24.3 | 0.2 | 0.7 | 0.2 | 2.0 | 4.6 | 6.4 | 10.2 | 75.7 |
| 1976..... | 100.0 | 24.4 | 0.3 | 0.8 | 0.2 | 1.8 | 5.1 | 6.4 | 9.8 | 75.6 |
| 1977..... | 100.0 | 24.5 | 0.5 | 0.8 | 0.3 | 1.7 | 5.4 | 6.3 | 9.5 | 75.5 |
| 1978..... | 100.0 | 24.5 | 0.8 | 0.8 | 0.3 | 1.6 | 5.5 | 6.0 | 9.4 | 75.5 |
| 1979..... | 100.0 | 24.4 | 1.1 | 0.9 | 0.3 | 1.6 | 5.5 | 5.9 | 9.2 | 75.6 |
| 1980..... | 100.0 | 24.5 | 1.3 | 0.9 | 0.3 | 1.8 | 5.4 | 5.8 | 9.0 | 75.5 |
| 1981..... | 100.0 | 24.5 | 1.5 | 0.9 | 0.4 | 2.1 | 5.2 | 5.7 | 8.8 | 75.5 |
| 1982..... | 100.0 | 25.0 | 1.7 | 0.9 | 0.4 | 2.5 | 5.0 | 5.7 | 8.7 | 75.0 |
| 1983..... | 100.0 | 24.8 | 1.9 | 0.9 | 0.4 | 2.9 | 4.9 | 5.5 | 8.2 | 75.2 |
| 1984..... | 100.0 | 25.0 | 2.1 | 0.9 | 0.4 | 3.6 | 4.7 | 5.5 | 7.8 | 75.0 |
| 1985..... | 100.0 | 25.6 | 2.2 | 1.0 | 0.4 | 4.3 | 4.6 | 5.4 | 7.7 | 74.4 |
| 1986..... | 100.0 | 25.6 | 2.2 | 0.9 | 0.3 | 4.5 | 4.5 | 5.5 | 7.7 | 74.4 |
| 1987..... | 100.0 | 25.4 | 2.2 | 0.9 | 0.2 | 4.2 | 4.3 | 5.7 | 7.8 | 74.6 |
| 1988..... | 100.0 | 24.9 | 2.1 | 0.9 | 0.2 | 3.6 | 4.3 | 6.1 | 8.0 | 75.1 |
| 1989..... | 100.0 | 24.6 | 1.9 | 0.8 | 0.1 | 3.1 | 4.0 | 6.4 | 8.3 | 75.4 |
| 1990..... | 100.0 | 24.7 | 1.8 | 0.8 | 0.1 | 2.7 | 4.0 | 6.8 | 8.6 | 75.3 |
| 1991..... | 100.0 | 24.8 | 1.6 | 0.7 | 0.1 | 2.4 | 4.0 | 7.1 | 8.8 | 75.2 |
| 1992..... | 100.0 | 25.5 | 1.5 | 0.7 | 0.2 | 2.3 | 4.3 | 7.5 | 9.0 | 74.5 |
| 1993..... | 100.0 | 25.8 | 1.6 | 0.7 | 0.2 | 2.2 | 4.5 | 7.7 | 9.0 | 74.2 |
| 1994..... | 100.0 | 26.5 | 1.6 | 0.8 | 0.2 | 2.1 | 4.9 | 7.9 | 8.9 | 73.5 |
| 1995..... | 100.0 | 27.3 | 1.7 | 0.8 | 0.2 | 2.1 | 5.5 | 8.2 | 8.7 | 72.7 |

See explanatory information and SOURCES at end of table.

Appendix table 3-2. Bachelor's degrees awarded to women, by major field group: 1966-1995

[Women as a percentage of all bachelor's recipients]

Page 3 of 3

| Year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------|------------|--------------------------------|-------------|-------------------|--|--------------------------------|-------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematical/computer sciences | Biological/agricultural | Psychology | Social sciences | |
| 1966..... | 42.6 | 24.8 | 0.4 | 14.0 | 9.4 | 33.2 | 25.0 | 40.8 | 34.3 | 52.2 |
| 1967..... | 42.3 | 25.4 | 0.5 | 13.9 | 10.2 | 34.1 | 24.5 | 40.0 | 34.7 | 51.7 |
| 1968..... | 43.5 | 27.1 | 0.6 | 14.3 | 10.0 | 36.7 | 24.8 | 42.3 | 35.8 | 52.6 |
| 1969..... | 43.8 | 27.8 | 0.8 | 14.3 | 10.0 | 36.6 | 24.4 | 43.1 | 36.5 | 52.6 |
| 1970..... | 43.2 | 28.0 | 0.8 | 14.5 | 10.2 | 36.1 | 24.1 | 43.6 | 36.6 | 51.5 |
| 1971..... | 43.5 | 28.9 | 0.8 | 14.7 | 10.8 | 36.0 | 24.1 | 44.7 | 37.6 | 51.2 |
| 1972..... | 43.7 | 29.4 | 1.1 | 15.8 | 12.2 | 35.9 | 24.4 | 46.4 | 37.0 | 51.1 |
| 1973..... | 43.9 | 29.9 | 1.2 | 15.8 | 12.2 | 36.3 | 25.2 | 47.8 | 37.0 | 51.3 |
| 1974..... | 44.4 | 31.4 | 1.6 | 16.8 | 15.9 | 36.6 | 27.0 | 50.5 | 37.6 | 51.1 |
| 1975..... | 45.4 | 32.8 | 2.1 | 18.8 | 17.0 | 37.0 | 29.2 | 52.7 | 38.5 | 51.8 |
| 1976..... | 45.6 | 33.6 | 3.4 | 19.5 | 18.3 | 35.3 | 31.2 | 54.4 | 38.8 | 51.5 |
| 1977..... | 46.2 | 34.6 | 4.9 | 19.9 | 20.8 | 36.1 | 32.9 | 56.7 | 40.3 | 51.9 |
| 1978..... | 47.2 | 35.5 | 7.4 | 21.5 | 21.6 | 35.7 | 35.2 | 58.9 | 41.6 | 52.9 |
| 1979..... | 48.3 | 36.3 | 9.1 | 22.6 | 22.8 | 35.9 | 37.1 | 61.3 | 42.9 | 54.1 |
| 1980..... | 49.2 | 37.2 | 10.1 | 24.0 | 23.8 | 36.4 | 39.1 | 63.3 | 44.8 | 54.9 |
| 1981..... | 49.9 | 37.8 | 11.1 | 24.7 | 24.9 | 36.9 | 41.1 | 65.1 | 45.4 | 55.7 |
| 1982..... | 50.5 | 38.5 | 12.3 | 26.2 | 25.6 | 37.9 | 42.3 | 66.9 | 46.2 | 56.3 |
| 1983..... | 50.7 | 38.8 | 13.3 | 28.5 | 25.3 | 38.9 | 43.8 | 67.6 | 46.3 | 56.4 |
| 1984..... | 50.7 | 38.6 | 14.1 | 29.4 | 24.4 | 39.3 | 44.4 | 67.9 | 45.6 | 56.6 |
| 1985..... | 50.9 | 38.8 | 14.5 | 29.7 | 24.6 | 39.5 | 45.1 | 68.2 | 45.8 | 57.0 |
| 1986..... | 51.0 | 39.0 | 14.5 | 29.8 | 22.3 | 38.8 | 45.5 | 69.0 | 45.6 | 57.1 |
| 1987..... | 51.7 | 39.7 | 15.3 | 30.2 | 22.6 | 38.2 | 46.1 | 69.0 | 45.8 | 57.6 |
| 1988..... | 52.2 | 40.6 | 15.4 | 32.1 | 23.8 | 36.9 | 47.7 | 70.1 | 45.8 | 57.6 |
| 1989..... | 52.7 | 41.3 | 15.2 | 30.9 | 25.2 | 35.9 | 47.6 | 70.8 | 46.2 | 57.8 |
| 1990..... | 53.3 | 42.5 | 15.4 | 32.2 | 27.9 | 35.8 | 48.2 | 71.5 | 46.3 | 58.1 |
| 1991..... | 54.1 | 43.9 | 15.5 | 32.4 | 28.7 | 36.1 | 48.7 | 72.6 | 47.2 | 58.5 |
| 1992..... | 54.3 | 44.9 | 15.6 | 33.1 | 32.0 | 35.6 | 49.3 | 73.2 | 47.8 | 58.5 |
| 1993..... | 54.4 | 45.3 | 15.9 | 33.6 | 30.0 | 35.4 | 48.9 | 73.2 | 48.2 | 58.5 |
| 1994..... | 54.6 | 45.8 | 16.5 | 34.6 | 31.1 | 35.2 | 48.9 | 73.1 | 49.0 | 58.7 |
| 1995..... | 54.8 | 46.5 | 17.3 | 35.5 | 34.0 | 35.1 | 49.7 | 73.0 | 49.8 | 58.7 |

NOTE: For the years 1966-1970, the science and engineering total includes degrees granted for "other" science; these degrees are not included in any of the specific categories. These degrees constitute less than 2 percent of the total.

SOURCES: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics: Survey of Degrees and Other Formal Awards Conferred, and Completions Survey.

Appendix table 3-3. Bachelor's degrees awarded to men, by major field group: 1967-1995

Page 1 of 2

| Year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------|------------|--------------------------------|-------------|-------------------|--|--------------------------------|-------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematical/computer sciences | Biological/agricultural | Psychology | Social sciences | |
| 1967..... | 324,236 | 149,045 | 36,013 | 13,642 | 1,739 | 14,196 | 24,541 | 11,657 | 47,257 | 175,191 |
| 1968..... | 359,747 | 165,200 | 37,464 | 14,602 | 2,105 | 15,243 | 27,175 | 13,791 | 54,820 | 194,547 |
| 1969..... | 412,865 | 189,272 | 41,270 | 15,962 | 2,633 | 17,915 | 31,190 | 16,758 | 63,544 | 223,593 |
| 1970..... | 453,605 | 204,528 | 44,433 | 15,547 | 3,008 | 18,593 | 33,747 | 19,067 | 70,133 | 249,077 |
| 1971..... | 478,423 | 209,318 | 44,887 | 15,317 | 3,179 | 17,488 | 34,712 | 21,117 | 72,618 | 269,105 |
| 1972..... | 503,631 | 216,422 | 45,219 | 14,161 | 3,560 | 17,466 | 36,514 | 23,267 | 76,235 | 287,209 |
| 1973..... | 521,534 | 225,090 | 46,203 | 13,826 | 3,842 | 17,543 | 40,908 | 25,110 | 77,658 | 296,444 |
| 1974..... | 530,907 | 223,652 | 42,550 | 13,686 | 4,055 | 16,851 | 45,174 | 25,849 | 75,487 | 307,255 |
| 1975..... | 508,424 | 210,741 | 38,979 | 12,990 | 4,050 | 14,729 | 46,937 | 24,333 | 68,723 | 297,683 |
| 1976..... | 508,549 | 205,570 | 37,473 | 13,280 | 4,124 | 14,071 | 48,168 | 22,987 | 65,467 | 302,979 |
| 1977..... | 499,121 | 198,805 | 39,313 | 13,560 | 4,479 | 13,241 | 47,339 | 20,692 | 60,181 | 300,316 |
| 1978..... | 491,066 | 195,888 | 43,769 | 13,453 | 4,709 | 12,815 | 44,852 | 18,517 | 57,773 | 295,178 |
| 1979..... | 481,394 | 193,247 | 48,588 | 13,358 | 4,695 | 13,249 | 41,994 | 16,649 | 54,714 | 288,147 |
| 1980..... | 477,750 | 191,215 | 52,858 | 13,285 | 4,693 | 14,439 | 38,931 | 15,590 | 51,419 | 286,535 |
| 1981..... | 474,336 | 190,977 | 56,654 | 13,137 | 5,028 | 16,672 | 35,265 | 14,447 | 49,774 | 283,359 |
| 1982..... | 477,543 | 193,624 | 59,185 | 12,737 | 5,254 | 19,966 | 33,222 | 13,756 | 49,504 | 283,919 |
| 1983..... | 483,395 | 194,380 | 63,018 | 11,586 | 5,450 | 22,802 | 31,132 | 13,228 | 47,164 | 289,015 |
| 1984..... | 486,750 | 199,150 | 65,424 | 11,175 | 5,991 | 27,893 | 29,108 | 12,949 | 46,610 | 287,600 |
| 1985..... | 486,660 | 203,402 | 66,326 | 11,434 | 5,715 | 32,985 | 28,172 | 12,815 | 45,955 | 283,258 |
| 1986..... | 490,143 | 204,743 | 65,682 | 11,088 | 4,722 | 35,920 | 27,488 | 12,691 | 47,152 | 285,400 |
| 1987..... | 485,003 | 199,981 | 63,021 | 10,792 | 3,629 | 34,871 | 26,168 | 13,399 | 48,101 | 285,022 |
| 1988..... | 481,236 | 191,549 | 59,375 | 9,673 | 2,707 | 32,112 | 24,550 | 13,584 | 49,548 | 289,687 |
| 1989..... | 487,566 | 189,338 | 56,759 | 9,777 | 2,380 | 29,682 | 23,852 | 14,291 | 52,597 | 298,228 |
| 1990..... | 495,867 | 189,082 | 54,732 | 9,106 | 2,001 | 27,184 | 24,050 | 15,399 | 56,610 | 306,785 |
| 1991..... | 508,952 | 189,328 | 52,522 | 9,253 | 1,946 | 25,700 | 25,007 | 16,155 | 58,745 | 319,624 |
| 1992..... | 525,395 | 195,779 | 52,305 | 9,289 | 2,177 | 25,693 | 27,473 | 17,130 | 61,712 | 329,616 |
| 1993..... | 537,536 | 200,315 | 52,724 | 9,424 | 2,453 | 25,483 | 30,439 | 18,029 | 61,763 | 337,221 |
| 1994..... | 537,061 | 202,284 | 52,609 | 9,588 | 2,665 | 25,397 | 33,347 | 18,749 | 59,929 | 334,777 |
| 1995..... | 531,146 | 202,217 | 52,421 | 9,605 | 2,954 | 25,066 | 35,915 | 19,638 | 56,618 | 328,929 |

See explanatory information and SOURCES at end of table.

Appendix table 3-3. Bachelor's degrees awarded to men, by major field group: 1966-1995

[Percent distribution]

Page 2 of 2

| Year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------|------------|--------------------------------|-------------|-------------------|--|--------------------------------|-------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematical/computer sciences | Biological/agricultural | Psychology | Social sciences | |
| 1966..... | 100.0 | 46.1 | 11.9 | 4.4 | 0.5 | 4.5 | 7.4 | 3.3 | 14.1 | 53.9 |
| 1967..... | 100.0 | 46.0 | 11.1 | 4.2 | 0.5 | 4.4 | 7.6 | 3.6 | 14.6 | 54.0 |
| 1968..... | 100.0 | 45.9 | 10.4 | 4.1 | 0.6 | 4.2 | 7.6 | 3.8 | 15.2 | 54.1 |
| 1969..... | 100.0 | 45.8 | 10.0 | 3.9 | 0.6 | 4.3 | 7.6 | 4.1 | 15.4 | 54.2 |
| 1970..... | 100.0 | 45.1 | 9.8 | 3.4 | 0.7 | 4.1 | 7.4 | 4.2 | 15.5 | 54.9 |
| 1971..... | 100.0 | 43.8 | 9.4 | 3.2 | 0.7 | 3.7 | 7.3 | 4.4 | 15.2 | 56.2 |
| 1972..... | 100.0 | 43.0 | 9.0 | 2.8 | 0.7 | 3.5 | 7.3 | 4.6 | 15.1 | 57.0 |
| 1973..... | 100.0 | 43.2 | 8.9 | 2.7 | 0.7 | 3.4 | 7.8 | 4.8 | 14.9 | 56.8 |
| 1974..... | 100.0 | 42.1 | 8.0 | 2.6 | 0.8 | 3.2 | 8.5 | 4.9 | 14.2 | 57.9 |
| 1975..... | 100.0 | 41.4 | 7.7 | 2.6 | 0.8 | 2.9 | 9.2 | 4.8 | 13.5 | 58.6 |
| 1976..... | 100.0 | 40.4 | 7.4 | 2.6 | 0.8 | 2.8 | 9.5 | 4.5 | 12.9 | 59.6 |
| 1977..... | 100.0 | 39.8 | 7.9 | 2.7 | 0.9 | 2.7 | 9.5 | 4.1 | 12.1 | 60.2 |
| 1978..... | 100.0 | 39.9 | 8.9 | 2.7 | 1.0 | 2.6 | 9.1 | 3.8 | 11.8 | 60.1 |
| 1979..... | 100.0 | 40.1 | 10.1 | 2.8 | 1.0 | 2.8 | 8.7 | 3.5 | 11.4 | 59.9 |
| 1980..... | 100.0 | 40.0 | 11.1 | 2.8 | 1.0 | 3.0 | 8.1 | 3.3 | 10.8 | 60.0 |
| 1981..... | 100.0 | 40.3 | 11.9 | 2.8 | 1.1 | 3.5 | 7.4 | 3.0 | 10.5 | 59.7 |
| 1982..... | 100.0 | 40.5 | 12.4 | 2.7 | 1.1 | 4.2 | 7.0 | 2.9 | 10.4 | 59.5 |
| 1983..... | 100.0 | 40.2 | 13.0 | 2.4 | 1.1 | 4.7 | 6.4 | 2.7 | 9.8 | 59.8 |
| 1984..... | 100.0 | 40.9 | 13.4 | 2.3 | 1.2 | 5.7 | 6.0 | 2.7 | 9.6 | 59.1 |
| 1985..... | 100.0 | 41.8 | 13.6 | 2.3 | 1.2 | 6.8 | 5.8 | 2.6 | 9.4 | 58.2 |
| 1986..... | 100.0 | 41.8 | 13.4 | 2.3 | 1.0 | 7.3 | 5.6 | 2.6 | 9.6 | 58.2 |
| 1987..... | 100.0 | 41.2 | 13.0 | 2.2 | 0.7 | 7.2 | 5.4 | 2.8 | 9.9 | 58.8 |
| 1988..... | 100.0 | 39.8 | 12.3 | 2.0 | 0.6 | 6.7 | 5.1 | 2.8 | 10.3 | 60.2 |
| 1989..... | 100.0 | 38.8 | 11.6 | 2.0 | 0.5 | 6.1 | 4.9 | 2.9 | 10.8 | 61.2 |
| 1990..... | 100.0 | 38.1 | 11.0 | 1.8 | 0.4 | 5.5 | 4.9 | 3.1 | 11.4 | 61.9 |
| 1991..... | 100.0 | 37.2 | 10.3 | 1.8 | 0.4 | 5.0 | 4.9 | 3.2 | 11.5 | 62.8 |
| 1992..... | 100.0 | 37.3 | 10.0 | 1.8 | 0.4 | 4.9 | 5.2 | 3.3 | 11.7 | 62.7 |
| 1993..... | 100.0 | 37.3 | 9.8 | 1.8 | 0.5 | 4.7 | 5.7 | 3.4 | 11.5 | 62.7 |
| 1994..... | 100.0 | 37.7 | 9.8 | 1.8 | 0.5 | 4.7 | 6.2 | 3.5 | 11.2 | 62.3 |
| 1995..... | 100.0 | 38.1 | 9.9 | 1.8 | 0.6 | 4.7 | 6.8 | 3.7 | 10.7 | 61.9 |

NOTES: For the years 1966-1970 the science and engineering total includes degrees granted for "other" science; these degrees are not included in any of the specific categories. These degrees constitute less than 2 percent of the total. Because of rounding, details may not sum to totals.

SOURCES: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics: Survey of Degrees and Other Formal Awards Conferred, and Completions Survey.

**Appendix table 3-4. Number of earned bachelor's degrees, by field and by race/ethnicity of male recipients:
1989–1995**

Page 1 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Total, all recipients | | | | | | | |
| Total science and engineering..... | 198,728 | 199,916 | 201,499 | 209,270 | 214,388 | 216,492 | 216,078 |
| Engineering..... | 56,759 | 54,730 | 52,522 | 52,270 | 52,696 | 52,569 | 52,389 |
| Sciences..... | 141,969 | 145,186 | 148,977 | 157,000 | 161,692 | 163,923 | 163,689 |
| Natural sciences..... | 65,875 | 62,518 | 62,091 | 64,678 | 67,855 | 70,956 | 73,593 |
| Physical science ¹ | 12,157 | 11,109 | 11,199 | 11,466 | 11,877 | 12,253 | 12,559 |
| Mathematical science..... | 8,264 | 7,863 | 7,804 | 7,923 | 7,859 | 7,754 | 7,318 |
| Computer science..... | 21,418 | 19,321 | 17,896 | 17,670 | 17,565 | 17,466 | 17,628 |
| Biological science..... | 18,295 | 18,631 | 19,715 | 21,107 | 23,111 | 25,314 | 26,956 |
| Agricultural science..... | 5,741 | 5,594 | 5,477 | 6,512 | 7,443 | 8,169 | 9,132 |
| Social sciences..... | 76,094 | 82,668 | 86,886 | 92,322 | 93,837 | 92,967 | 90,096 |
| Social science..... | 61,803 | 67,269 | 70,731 | 75,185 | 75,808 | 74,218 | 70,458 |
| Psychology..... | 14,291 | 15,399 | 16,155 | 17,137 | 18,029 | 18,749 | 19,638 |
| Non-S&E ² | 288,838 | 295,951 | 307,453 | 316,125 | 323,148 | 320,569 | 315,068 |
| Grand total..... | 487,566 | 495,867 | 508,952 | 525,395 | 537,536 | 537,061 | 531,146 |
| U.S. citizens and permanent residents, total ³ | | | | | | | |
| Total science and engineering..... | 189,685 | 190,980 | 192,516 | 200,929 | 204,994 | 207,030 | 206,144 |
| Engineering..... | 52,160 | 50,303 | 48,410 | 48,518 | 48,655 | 48,577 | 48,145 |
| Sciences..... | 137,525 | 140,677 | 144,106 | 152,411 | 156,339 | 158,453 | 157,999 |
| Natural sciences..... | 62,973 | 59,662 | 59,096 | 61,872 | 64,584 | 67,726 | 70,302 |
| Physical science ¹ | 11,751 | 10,694 | 10,788 | 11,049 | 11,352 | 11,786 | 12,086 |
| Mathematical science..... | 7,917 | 7,539 | 7,430 | 7,565 | 7,514 | 7,390 | 6,960 |
| Computer science..... | 19,901 | 17,849 | 16,433 | 16,251 | 15,964 | 15,799 | 15,960 |
| Biological science..... | 17,869 | 18,200 | 19,171 | 20,628 | 22,542 | 24,739 | 26,334 |
| Agricultural science..... | 5,535 | 5,380 | 5,274 | 6,379 | 7,212 | 8,012 | 8,962 |
| Social sciences..... | 74,552 | 81,015 | 85,010 | 90,539 | 91,755 | 90,727 | 87,697 |
| Social science..... | 60,431 | 65,776 | 69,033 | 73,577 | 73,946 | 72,185 | 68,291 |
| Psychology..... | 14,121 | 15,239 | 15,977 | 16,962 | 17,809 | 18,542 | 19,406 |
| Non-S&E ² | 280,764 | 287,979 | 298,209 | 307,360 | 313,490 | 310,288 | 303,886 |
| Grand total..... | 470,449 | 478,959 | 490,725 | 508,289 | 518,484 | 517,318 | 510,030 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-4. Number of earned bachelor's degrees, by field and by race/ethnicity of male recipients:
1989–1995**

Page 2 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| White, non-Hispanics | | | | | | | |
| Total science and engineering..... | 158,590 | 157,675 | 158,687 | 164,220 | 166,063 | 165,245 | 161,731 |
| Engineering..... | 42,779 | 40,533 | 38,692 | 38,513 | 38,244 | 37,830 | 36,785 |
| Sciences..... | 115,811 | 117,142 | 119,995 | 125,707 | 127,819 | 127,415 | 124,946 |
| Natural sciences..... | 52,132 | 48,848 | 48,304 | 50,126 | 52,048 | 54,115 | 55,197 |
| Physical science ¹ | 10,173 | 9,179 | 9,203 | 9,430 | 9,614 | 9,958 | 10,006 |
| Mathematical science..... | 6,598 | 6,253 | 6,119 | 6,255 | 6,131 | 5,920 | 5,456 |
| Computer science..... | 15,799 | 13,974 | 12,916 | 12,571 | 12,329 | 12,022 | 11,793 |
| Biological science..... | 14,377 | 14,488 | 15,174 | 16,030 | 17,293 | 18,882 | 19,790 |
| Agricultural science..... | 5,185 | 4,954 | 4,892 | 5,840 | 6,681 | 7,333 | 8,152 |
| Social sciences..... | 63,679 | 68,294 | 71,691 | 75,581 | 75,771 | 73,300 | 69,749 |
| Social science..... | 51,766 | 55,662 | 58,414 | 61,574 | 61,269 | 58,409 | 54,508 |
| Psychology..... | 11,913 | 12,632 | 13,277 | 14,007 | 14,502 | 14,891 | 15,241 |
| Non-S&E ² | 239,962 | 243,349 | 252,058 | 258,297 | 261,177 | 254,966 | 245,424 |
| Grand total..... | 398,552 | 401,024 | 410,745 | 422,517 | 427,240 | 420,211 | 407,155 |
| Asians | | | | | | | |
| Total science and engineering..... | 11,578 | 11,528 | 11,942 | 13,198 | 14,132 | 14,967 | 16,039 |
| Engineering..... | 4,936 | 4,827 | 4,969 | 5,067 | 5,130 | 5,235 | 5,340 |
| Sciences..... | 6,642 | 6,701 | 6,973 | 8,131 | 9,002 | 9,732 | 10,699 |
| Natural sciences..... | 4,073 | 4,054 | 4,149 | 4,783 | 5,380 | 5,721 | 6,483 |
| Physical science ¹ | 626 | 592 | 606 | 615 | 675 | 648 | 784 |
| Mathematical science..... | 527 | 491 | 482 | 486 | 502 | 523 | 519 |
| Computer science..... | 1,420 | 1,335 | 1,268 | 1,373 | 1,492 | 1,476 | 1,583 |
| Biological science..... | 1,442 | 1,573 | 1,736 | 2,230 | 2,633 | 2,992 | 3,467 |
| Agricultural science..... | 58 | 63 | 57 | 79 | 78 | 82 | 130 |
| Social sciences..... | 2,569 | 2,647 | 2,824 | 3,348 | 3,622 | 4,011 | 4,216 |
| Social science..... | 2,065 | 2,156 | 2,260 | 2,728 | 2,884 | 3,204 | 3,247 |
| Psychology..... | 504 | 491 | 564 | 620 | 738 | 807 | 969 |
| Non-S&E ² | 7,625 | 7,569 | 8,831 | 9,992 | 10,687 | 11,453 | 12,309 |
| Grand total..... | 19,203 | 19,097 | 20,773 | 23,190 | 24,819 | 26,420 | 28,348 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-4. Number of earned bachelor's degrees, by field and by race/ethnicity of male recipients:
1989–1995**

Page 3 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Underrepresented minorities, total | | | | | | | |
| Total science and engineering..... | 15,672 | 15,954 | 17,027 | 18,890 | 20,160 | 22,001 | 23,235 |
| Engineering..... | 3,638 | 3,574 | 3,654 | 3,952 | 4,261 | 4,458 | 4,917 |
| Sciences..... | 12,034 | 12,380 | 13,373 | 14,938 | 15,899 | 17,543 | 18,318 |
| Natural sciences..... | 5,411 | 5,043 | 5,226 | 5,450 | 5,766 | 6,389 | 6,888 |
| Physical science ¹ | 771 | 655 | 755 | 745 | 792 | 931 | 998 |
| Mathematical science..... | 636 | 614 | 657 | 675 | 744 | 786 | 820 |
| Computer science..... | 2,013 | 1,797 | 1,758 | 1,864 | 1,802 | 1,939 | 2,190 |
| Biological science..... | 1,734 | 1,685 | 1,799 | 1,885 | 2,130 | 2,337 | 2,449 |
| Agricultural science..... | 257 | 292 | 257 | 281 | 298 | 396 | 431 |
| Social sciences..... | 6,623 | 7,337 | 8,147 | 9,488 | 10,133 | 11,154 | 11,430 |
| Social science..... | 5,286 | 5,788 | 6,442 | 7,590 | 8,013 | 8,813 | 8,742 |
| Psychology..... | 1,337 | 1,549 | 1,705 | 1,898 | 2,120 | 2,341 | 2,688 |
| Non-S&E ² | 25,978 | 27,093 | 29,887 | 31,805 | 34,440 | 36,527 | 38,307 |
| Grand total..... | 41,650 | 43,047 | 46,914 | 50,695 | 54,600 | 58,528 | 61,542 |
| Black, non-Hispanics | | | | | | | |
| Total science and engineering..... | 7,685 | 7,830 | 8,448 | 9,375 | 10,099 | 10,806 | 11,127 |
| Engineering..... | 1,397 | 1,416 | 1,484 | 1,614 | 1,764 | 1,784 | 1,846 |
| Sciences..... | 6,288 | 6,414 | 6,964 | 7,761 | 8,335 | 9,022 | 9,281 |
| Natural sciences..... | 2,732 | 2,476 | 2,538 | 2,709 | 2,872 | 3,146 | 3,314 |
| Physical science ¹ | 365 | 292 | 391 | 381 | 370 | 464 | 495 |
| Mathematical science..... | 374 | 342 | 380 | 374 | 444 | 457 | 476 |
| Computer science..... | 1,205 | 1,074 | 971 | 1,092 | 1,049 | 1,161 | 1,241 |
| Biological science..... | 700 | 658 | 696 | 749 | 883 | 927 | 981 |
| Agricultural science..... | 88 | 110 | 100 | 113 | 126 | 137 | 121 |
| Social sciences..... | 3,556 | 3,938 | 4,426 | 5,052 | 5,463 | 5,876 | 5,967 |
| Social science..... | 2,911 | 3,144 | 3,547 | 4,070 | 4,364 | 4,644 | 4,565 |
| Psychology..... | 645 | 794 | 879 | 982 | 1,099 | 1,232 | 1,402 |
| Non-S&E ² | 14,228 | 14,760 | 15,790 | 17,143 | 18,275 | 19,300 | 19,871 |
| Grand total..... | 21,913 | 22,590 | 24,238 | 26,518 | 28,374 | 30,106 | 30,998 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-4. Number of earned bachelor's degrees, by field and by race/ethnicity of male recipients:
1989–1995**

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| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Hispanics | | | | | | | |
| Total science and engineering..... | 7,318 | 7,434 | 7,888 | 8,730 | 9,160 | 10,190 | 11,031 |
| Engineering..... | 2,100 | 2,035 | 2,039 | 2,187 | 2,355 | 2,495 | 2,895 |
| Sciences..... | 5,218 | 5,399 | 5,849 | 6,543 | 6,805 | 7,695 | 8,136 |
| Natural sciences..... | 2,432 | 2,328 | 2,458 | 2,497 | 2,608 | 2,925 | 3,196 |
| Physical science ¹ | 362 | 311 | 318 | 326 | 361 | 415 | 437 |
| Mathematical science..... | 224 | 249 | 259 | 279 | 273 | 300 | 315 |
| Computer science..... | 750 | 669 | 738 | 724 | 700 | 719 | 876 |
| Biological science..... | 965 | 955 | 1,019 | 1,043 | 1,144 | 1,298 | 1,340 |
| Agricultural science..... | 131 | 144 | 124 | 125 | 130 | 193 | 228 |
| Social sciences..... | 2,786 | 3,071 | 3,391 | 4,046 | 4,197 | 4,770 | 4,940 |
| Social science..... | 2,153 | 2,384 | 2,634 | 3,220 | 3,269 | 3,774 | 3,774 |
| Psychology..... | 633 | 687 | 757 | 826 | 928 | 996 | 1,166 |
| Non-S&E ² | 10,684 | 11,249 | 12,893 | 13,296 | 14,665 | 15,670 | 16,844 |
| Grand total..... | 18,002 | 18,683 | 20,781 | 22,026 | 23,825 | 25,860 | 27,875 |
| American Indians or Alaskan Natives | | | | | | | |
| Total science and engineering..... | 669 | 690 | 691 | 785 | 901 | 1,005 | 1,077 |
| Engineering..... | 141 | 123 | 131 | 151 | 142 | 179 | 176 |
| Sciences..... | 528 | 567 | 560 | 634 | 759 | 826 | 901 |
| Natural sciences..... | 247 | 239 | 230 | 244 | 286 | 318 | 378 |
| Physical science ¹ | 44 | 52 | 46 | 38 | 61 | 52 | 66 |
| Mathematical science..... | 38 | 23 | 18 | 22 | 27 | 29 | 29 |
| Computer science..... | 58 | 54 | 49 | 48 | 53 | 59 | 73 |
| Biological science..... | 69 | 72 | 84 | 93 | 103 | 112 | 128 |
| Agricultural science..... | 38 | 38 | 33 | 43 | 42 | 66 | 82 |
| Social sciences..... | 281 | 328 | 330 | 390 | 473 | 508 | 523 |
| Social science..... | 222 | 260 | 261 | 300 | 380 | 395 | 403 |
| Psychology..... | 59 | 68 | 69 | 90 | 93 | 113 | 120 |
| Non-S&E ² | 1,066 | 1,084 | 1,204 | 1,366 | 1,500 | 1,557 | 1,592 |
| Grand total..... | 1,735 | 1,774 | 1,895 | 2,151 | 2,401 | 2,562 | 2,669 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-4. Number of earned bachelor's degrees, by field and by race/ethnicity of male recipients:
1989–1995**

Page 5 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|
| U.S. citizens and permanent residents, unknown race/ethnicity | | | | | | | |
| Total science and engineering..... | 3,845 | 5,823 | 4,860 | 4,621 | 4,639 | 4,817 | 5,139 |
| Engineering..... | 807 | 1,369 | 1,095 | 986 | 1,020 | 1,054 | 1,103 |
| Sciences..... | 3,038 | 4,454 | 3,765 | 3,635 | 3,619 | 3,763 | 4,036 |
| Natural sciences..... | 1,357 | 1,717 | 1,417 | 1,513 | 1,390 | 1,501 | 1,734 |
| Physical science ¹ | 181 | 268 | 224 | 259 | 271 | 249 | 298 |
| Mathematical science..... | 156 | 181 | 172 | 149 | 137 | 161 | 165 |
| Computer science..... | 669 | 743 | 491 | 443 | 341 | 362 | 394 |
| Biological science..... | 316 | 454 | 462 | 483 | 486 | 528 | 628 |
| Agricultural science..... | 35 | 71 | 68 | 179 | 155 | 201 | 249 |
| Social sciences..... | 1,681 | 2,737 | 2,348 | 2,122 | 2,229 | 2,262 | 2,302 |
| Social science..... | 1,314 | 2,170 | 1,917 | 1,685 | 1,780 | 1,759 | 1,794 |
| Psychology..... | 367 | 567 | 431 | 437 | 449 | 503 | 508 |
| Non-S&E ² | 7,199 | 9,968 | 7,433 | 7,266 | 7,186 | 7,342 | 7,846 |
| Grand total..... | 11,044 | 15,791 | 12,293 | 11,887 | 11,825 | 12,159 | 12,985 |
| Nonresident aliens ⁴ | | | | | | | |
| Total science and engineering..... | 9,043 | 8,936 | 8,983 | 8,341 | 9,394 | 9,462 | 9,934 |
| Engineering..... | 4,599 | 4,427 | 4,112 | 3,752 | 4,041 | 3,992 | 4,244 |
| Sciences..... | 4,444 | 4,509 | 4,871 | 4,589 | 5,353 | 5,470 | 5,690 |
| Natural sciences..... | 2,902 | 2,856 | 2,995 | 2,806 | 3,271 | 3,230 | 3,291 |
| Physical science ¹ | 406 | 415 | 411 | 417 | 525 | 467 | 473 |
| Mathematical science..... | 347 | 324 | 374 | 358 | 345 | 364 | 358 |
| Computer science..... | 1,517 | 1,472 | 1,463 | 1,419 | 1,601 | 1,667 | 1,668 |
| Biological science..... | 426 | 431 | 544 | 479 | 569 | 575 | 622 |
| Agricultural science..... | 206 | 214 | 203 | 133 | 231 | 157 | 170 |
| Social sciences..... | 1,542 | 1,653 | 1,876 | 1,783 | 2,082 | 2,240 | 2,399 |
| Social science..... | 1,372 | 1,493 | 1,698 | 1,608 | 1,862 | 2,033 | 2,167 |
| Psychology..... | 170 | 160 | 178 | 175 | 220 | 207 | 232 |
| Non-S&E ² | 8,074 | 7,972 | 9,244 | 8,765 | 9,658 | 10,281 | 11,182 |
| Grand total..... | 17,117 | 16,908 | 18,227 | 17,106 | 19,052 | 19,743 | 21,116 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1989-95.

Appendix table 3-5. Number of earned bachelor's degrees, by field and by race/ethnicity of female recipients: 1989-1995

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| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Total, all recipients | | | | | | | |
| Total science and engineering..... | 138,703 | 145,877 | 155,286 | 167,663 | 174,047 | 178,888 | 183,731 |
| Engineering..... | 10,188 | 9,973 | 9,664 | 9,628 | 9,974 | 10,393 | 10,941 |
| Sciences..... | 128,515 | 135,904 | 145,622 | 158,035 | 164,073 | 168,495 | 172,790 |
| Natural sciences..... | 43,475 | 42,716 | 43,504 | 46,430 | 48,887 | 51,836 | 55,854 |
| Physical science ¹ | 5,172 | 5,094 | 5,208 | 5,610 | 5,814 | 6,272 | 6,816 |
| Mathematical science..... | 7,050 | 6,811 | 6,980 | 6,928 | 7,011 | 6,677 | 6,441 |
| Computer science..... | 9,545 | 8,374 | 7,514 | 7,184 | 6,912 | 6,992 | 7,034 |
| Biological science..... | 18,654 | 19,409 | 20,636 | 22,728 | 24,766 | 26,899 | 29,848 |
| Agricultural science..... | 3,054 | 3,028 | 3,166 | 3,980 | 4,384 | 4,996 | 5,715 |
| Social sciences..... | 85,040 | 93,188 | 102,118 | 111,605 | 115,186 | 116,659 | 116,936 |
| Social science..... | 50,377 | 54,569 | 59,380 | 64,699 | 65,964 | 65,640 | 63,973 |
| Psychology..... | 34,663 | 38,619 | 42,738 | 46,906 | 49,222 | 51,019 | 52,963 |
| Non-S&E ² | 403,902 | 420,407 | 443,759 | 457,014 | 467,695 | 467,192 | 459,559 |
| Grand total..... | 542,605 | 566,284 | 599,045 | 624,677 | 641,742 | 646,080 | 643,290 |
| U.S. citizens and permanent residents, total ³ | | | | | | | |
| Total science and engineering..... | 135,423 | 142,495 | 151,545 | 163,766 | 169,639 | 174,421 | 178,911 |
| Engineering..... | 9,715 | 9,483 | 9,194 | 9,157 | 9,510 | 9,845 | 10,375 |
| Sciences..... | 125,708 | 133,012 | 142,351 | 154,609 | 160,129 | 164,576 | 168,536 |
| Natural sciences..... | 41,955 | 41,246 | 41,943 | 44,867 | 47,072 | 50,117 | 53,995 |
| Physical science ¹ | 4,973 | 4,914 | 5,011 | 5,420 | 5,575 | 6,026 | 6,566 |
| Mathematical science..... | 6,854 | 6,611 | 6,776 | 6,694 | 6,804 | 6,479 | 6,206 |
| Computer science..... | 8,927 | 7,780 | 6,940 | 6,629 | 6,309 | 6,386 | 6,407 |
| Biological science..... | 18,207 | 18,973 | 20,117 | 22,214 | 24,118 | 26,319 | 29,189 |
| Agricultural science..... | 2,994 | 2,968 | 3,099 | 3,910 | 4,266 | 4,907 | 5,627 |
| Social sciences..... | 83,753 | 91,766 | 100,408 | 109,742 | 113,057 | 114,459 | 114,541 |
| Social science..... | 49,431 | 53,512 | 58,183 | 63,325 | 64,445 | 64,088 | 62,288 |
| Psychology..... | 34,322 | 38,254 | 42,225 | 46,417 | 48,612 | 50,371 | 52,253 |
| Non-S&E ² | 397,842 | 414,144 | 436,070 | 449,470 | 458,784 | 457,175 | 448,483 |
| Grand total..... | 533,265 | 556,639 | 587,615 | 613,236 | 628,423 | 631,596 | 627,394 |

See explanatory information and SOURCES at end of table.

Appendix table 3-5. Number of earned bachelor's degrees, by field and by race/ethnicity of female recipients: 1989-1995

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| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| White, non-Hispanics | | | | | | | |
| Total science and engineering..... | 108,272 | 112,550 | 119,503 | 128,394 | 131,108 | 132,371 | 133,042 |
| Engineering..... | 7,302 | 6,961 | 6,470 | 6,513 | 6,609 | 6,857 | 6,941 |
| Sciences..... | 100,970 | 105,589 | 113,033 | 121,881 | 124,499 | 125,514 | 126,101 |
| Natural sciences..... | 32,446 | 31,362 | 31,807 | 34,007 | 35,353 | 37,081 | 39,378 |
| Physical science ¹ | 4,065 | 3,876 | 3,942 | 4,248 | 4,327 | 4,658 | 4,946 |
| Mathematical science..... | 5,689 | 5,512 | 5,530 | 5,468 | 5,538 | 5,169 | 4,887 |
| Computer science..... | 5,912 | 4,944 | 4,433 | 4,273 | 3,826 | 3,794 | 3,739 |
| Biological science..... | 14,027 | 14,326 | 15,090 | 16,476 | 17,787 | 19,060 | 20,838 |
| Agricultural science..... | 2,753 | 2,704 | 2,812 | 3,542 | 3,875 | 4,400 | 4,968 |
| Social sciences..... | 68,524 | 74,227 | 81,226 | 87,874 | 89,146 | 88,433 | 86,723 |
| Social science..... | 39,931 | 42,723 | 46,369 | 49,815 | 49,885 | 48,454 | 46,050 |
| Psychology..... | 28,593 | 31,504 | 34,857 | 38,059 | 39,261 | 39,979 | 40,673 |
| Non-S&E ² | 333,502 | 343,112 | 362,115 | 370,542 | 373,255 | 365,542 | 352,588 |
| Grand total..... | 441,774 | 455,662 | 481,618 | 498,936 | 504,363 | 497,913 | 485,630 |
| Asians | | | | | | | |
| Total science and engineering..... | 7,560 | 7,909 | 8,610 | 9,437 | 10,372 | 11,453 | 13,089 |
| Engineering..... | 1,139 | 1,185 | 1,251 | 1,198 | 1,277 | 1,281 | 1,445 |
| Sciences..... | 6,421 | 6,724 | 7,359 | 8,239 | 9,095 | 10,172 | 11,644 |
| Natural sciences..... | 3,187 | 3,272 | 3,446 | 3,713 | 4,144 | 4,680 | 5,524 |
| Physical science ¹ | 296 | 345 | 377 | 386 | 423 | 448 | 563 |
| Mathematical science..... | 492 | 383 | 433 | 371 | 413 | 403 | 446 |
| Computer science..... | 848 | 809 | 742 | 709 | 753 | 771 | 782 |
| Biological science..... | 1,465 | 1,672 | 1,823 | 2,172 | 2,470 | 2,967 | 3,576 |
| Agricultural science..... | 86 | 63 | 71 | 75 | 85 | 91 | 157 |
| Social sciences..... | 3,234 | 3,452 | 3,913 | 4,526 | 4,951 | 5,492 | 6,120 |
| Social science..... | 2,163 | 2,313 | 2,592 | 2,996 | 3,151 | 3,522 | 3,758 |
| Psychology..... | 1,071 | 1,139 | 1,321 | 1,530 | 1,800 | 1,970 | 2,362 |
| Non-S&E ² | 10,810 | 11,021 | 12,342 | 13,989 | 15,396 | 16,802 | 17,858 |
| Grand total..... | 18,370 | 18,930 | 20,952 | 23,426 | 25,768 | 28,255 | 30,947 |

See explanatory information and SOURCES at end of table.

Appendix table 3-5. Number of earned bachelor's degrees, by field and by race/ethnicity of female recipients: 1989-1995

Page 3 of 5

| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Underrepresented minorities, total | | | | | | | |
| Total science and engineering..... | 16,278 | 17,465 | 19,655 | 22,493 | 24,522 | 26,821 | 28,609 |
| Engineering..... | 1,167 | 1,155 | 1,299 | 1,325 | 1,453 | 1,562 | 1,800 |
| Sciences..... | 15,111 | 16,310 | 18,356 | 21,168 | 23,069 | 25,259 | 26,809 |
| Natural sciences..... | 5,419 | 5,487 | 5,734 | 6,272 | 6,744 | 7,393 | 7,927 |
| Physical science ¹ | 551 | 590 | 600 | 680 | 736 | 806 | 934 |
| Mathematical science..... | 582 | 564 | 677 | 757 | 746 | 808 | 769 |
| Computer science..... | 1,729 | 1,619 | 1,534 | 1,478 | 1,588 | 1,672 | 1,725 |
| Biological science..... | 2,417 | 2,558 | 2,752 | 3,158 | 3,472 | 3,790 | 4,157 |
| Agricultural science..... | 140 | 156 | 171 | 199 | 202 | 317 | 342 |
| Social sciences..... | 9,692 | 10,823 | 12,622 | 14,896 | 16,325 | 17,866 | 18,882 |
| Social science..... | 5,926 | 6,606 | 7,658 | 9,057 | 9,905 | 10,587 | 10,879 |
| Psychology..... | 3,766 | 4,217 | 4,964 | 5,839 | 6,420 | 7,279 | 8,003 |
| Non-S&E ² | 44,237 | 46,865 | 51,953 | 56,260 | 60,964 | 65,714 | 68,281 |
| Grand total..... | 60,515 | 64,330 | 71,608 | 78,753 | 85,486 | 92,535 | 96,890 |
| Black, non-Hispanics | | | | | | | |
| Total science and engineering..... | 9,700 | 10,400 | 11,539 | 13,056 | 14,322 | 15,483 | 16,401 |
| Engineering..... | 670 | 656 | 745 | 748 | 813 | 875 | 999 |
| Sciences..... | 9,030 | 9,744 | 10,794 | 12,308 | 13,509 | 14,608 | 15,402 |
| Natural sciences..... | 3,273 | 3,306 | 3,296 | 3,692 | 4,100 | 4,413 | 4,707 |
| Physical science ¹ | 332 | 358 | 362 | 435 | 466 | 457 | 539 |
| Mathematical science..... | 418 | 378 | 431 | 530 | 521 | 535 | 519 |
| Computer science..... | 1,252 | 1,173 | 1,026 | 998 | 1,164 | 1,237 | 1,257 |
| Biological science..... | 1,216 | 1,336 | 1,415 | 1,636 | 1,856 | 2,053 | 2,250 |
| Agricultural science..... | 55 | 61 | 62 | 93 | 93 | 131 | 142 |
| Social sciences..... | 5,757 | 6,438 | 7,498 | 8,616 | 9,409 | 10,195 | 10,695 |
| Social science..... | 3,659 | 4,082 | 4,689 | 5,419 | 5,890 | 6,191 | 6,356 |
| Psychology..... | 2,098 | 2,356 | 2,809 | 3,197 | 3,519 | 4,004 | 4,339 |
| Non-S&E ² | 25,224 | 26,311 | 29,232 | 31,737 | 33,971 | 36,727 | 37,888 |
| Grand total..... | 34,924 | 36,711 | 40,771 | 44,793 | 48,293 | 52,210 | 54,289 |

See explanatory information and SOURCES at end of table.

Appendix table 3-5. Number of earned bachelor's degrees, by field and by race/ethnicity of female recipients: 1989-1995

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| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Hispanics | | | | | | | |
| Total science and engineering..... | 6,009 | 6,484 | 7,463 | 8,661 | 9,282 | 10,339 | 11,159 |
| Engineering..... | 461 | 476 | 527 | 546 | 606 | 648 | 756 |
| Sciences..... | 5,548 | 6,008 | 6,936 | 8,115 | 8,676 | 9,691 | 10,403 |
| Natural sciences..... | 1,985 | 2,029 | 2,247 | 2,395 | 2,426 | 2,723 | 2,923 |
| Physical science ¹ | 201 | 211 | 215 | 220 | 238 | 318 | 363 |
| Mathematical science..... | 149 | 164 | 221 | 203 | 197 | 243 | 221 |
| Computer science..... | 445 | 416 | 477 | 449 | 396 | 416 | 431 |
| Biological science..... | 1,125 | 1,164 | 1,245 | 1,434 | 1,508 | 1,603 | 1,750 |
| Agricultural science..... | 65 | 74 | 89 | 89 | 87 | 143 | 158 |
| Social sciences..... | 3,563 | 3,979 | 4,689 | 5,720 | 6,250 | 6,968 | 7,480 |
| Social science..... | 2,044 | 2,261 | 2,700 | 3,299 | 3,591 | 3,974 | 4,103 |
| Psychology..... | 1,519 | 1,718 | 1,989 | 2,421 | 2,659 | 2,994 | 3,377 |
| Non-S&E ² | 17,350 | 18,697 | 20,783 | 22,320 | 24,738 | 26,484 | 27,657 |
| Grand total..... | 23,359 | 25,181 | 28,246 | 30,981 | 34,020 | 36,823 | 38,816 |
| American Indians and Alaskan Natives | | | | | | | |
| Total science and engineering..... | 569 | 581 | 653 | 776 | 918 | 999 | 1,049 |
| Engineering..... | 36 | 23 | 27 | 31 | 34 | 39 | 45 |
| Sciences..... | 533 | 558 | 626 | 745 | 884 | 960 | 1,004 |
| Natural sciences..... | 161 | 152 | 191 | 185 | 218 | 257 | 297 |
| Physical science ¹ | 18 | 21 | 23 | 25 | 32 | 31 | 32 |
| Mathematical science..... | 15 | 22 | 25 | 24 | 28 | 30 | 29 |
| Computer science..... | 32 | 30 | 31 | 31 | 28 | 19 | 37 |
| Biological science..... | 76 | 58 | 92 | 88 | 108 | 134 | 157 |
| Agricultural science..... | 20 | 21 | 20 | 17 | 22 | 43 | 42 |
| Social sciences..... | 372 | 406 | 435 | 560 | 666 | 703 | 707 |
| Social science..... | 223 | 263 | 269 | 339 | 424 | 422 | 420 |
| Psychology..... | 149 | 143 | 166 | 221 | 242 | 281 | 287 |
| Non-S&E ² | 1,663 | 1,857 | 1,938 | 2,203 | 2,255 | 2,503 | 2,736 |
| Grand total..... | 2,232 | 2,438 | 2,591 | 2,979 | 3,173 | 3,502 | 3,785 |

See explanatory information and SOURCES at end of table.

Appendix table 3-5. Number of earned bachelor's degrees, by field and by race/ethnicity of female recipients: 1989-1995

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| Field | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| U.S. citizens and permanent residents, unknown race/ethnicity | | | | | | | |
| Total science and engineering..... | 3,313 | 4,571 | 3,777 | 3,442 | 3,637 | 3,776 | 4,171 |
| Engineering..... | 107 | 182 | 174 | 121 | 171 | 145 | 189 |
| Sciences..... | 3,206 | 4,389 | 3,603 | 3,321 | 3,466 | 3,631 | 3,982 |
| Natural sciences..... | 903 | 1,125 | 956 | 875 | 831 | 963 | 1,166 |
| Physical science ¹ | 61 | 103 | 92 | 106 | 89 | 114 | 123 |
| Mathematical science..... | 91 | 152 | 136 | 98 | 107 | 99 | 104 |
| Computer science..... | 438 | 408 | 231 | 169 | 142 | 149 | 161 |
| Biological science..... | 298 | 417 | 452 | 408 | 389 | 502 | 618 |
| Agricultural science..... | 15 | 45 | 45 | 94 | 104 | 99 | 160 |
| Social sciences..... | 2,303 | 3,264 | 2,647 | 2,446 | 2,635 | 2,668 | 2,816 |
| Social science..... | 1,411 | 1,870 | 1,564 | 1,457 | 1,504 | 1,525 | 1,601 |
| Psychology..... | 892 | 1,394 | 1,083 | 989 | 1,131 | 1,143 | 1,215 |
| Non-S&E ² | 9,293 | 13,146 | 9,660 | 8,679 | 9,169 | 9,117 | 9,756 |
| Grand total..... | 12,606 | 17,717 | 13,437 | 12,121 | 12,806 | 12,893 | 13,927 |
| Nonresident aliens ⁴ | | | | | | | |
| Total science and engineering..... | 3,280 | 3,382 | 3,741 | 3,897 | 4,408 | 4,467 | 4,820 |
| Engineering..... | 473 | 490 | 470 | 471 | 464 | 548 | 566 |
| Sciences..... | 2,807 | 2,892 | 3,271 | 3,426 | 3,944 | 3,919 | 4,254 |
| Natural sciences..... | 1,520 | 1,470 | 1,561 | 1,563 | 1,815 | 1,719 | 1,859 |
| Physical science ¹ | 199 | 180 | 197 | 190 | 239 | 246 | 250 |
| Mathematical science..... | 196 | 200 | 204 | 234 | 207 | 198 | 235 |
| Computer science..... | 618 | 594 | 574 | 555 | 603 | 606 | 627 |
| Biological science..... | 447 | 436 | 519 | 514 | 648 | 580 | 659 |
| Agricultural science..... | 60 | 60 | 67 | 70 | 118 | 89 | 88 |
| Social sciences..... | 1,287 | 1,422 | 1,710 | 1,863 | 2,129 | 2,200 | 2,395 |
| Social science..... | 946 | 1,057 | 1,197 | 1,374 | 1,519 | 1,552 | 1,685 |
| Psychology..... | 341 | 365 | 513 | 489 | 610 | 648 | 710 |
| Non-S&E ² | 6,060 | 6,263 | 7,689 | 7,544 | 8,911 | 10,017 | 11,076 |
| Grand total..... | 9,340 | 9,645 | 11,430 | 11,441 | 13,319 | 14,484 | 15,896 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

³ Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

⁴ Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

NOTES: Data on race/ethnicity were collected on broad fields of study only until 1994; therefore, these trend data could not be adjusted to the exact field taxonomies used by NSF.

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1989-95.

Appendix table 3-6. Percentage distribution of persons 18-24 years of age in total population, total undergraduate enrollment, and the index of representation, by race/ethnicity and sex: 1980, 1990-1994¹

Page 1 of 1

| Race/ethnicity and sex | 1980 | | | 1990 | | | 1991 | | |
|-------------------------|-----------------------------------|-------------------------------------|-------------------------|-----------------------------------|-------------------------------------|-------------------------|-----------------------------------|-------------------------------------|-------------------------|
| | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation |
| White males | 38.90 | 39.00 | 100.30 | 35.72 | 35.35 | 98.96 | 35.49 | 34.57 | 97.41 |
| Asian males | 0.78 | 1.25 | 159.40 | 1.67 | 2.12 | 127.20 | 1.74 | 2.30 | 132.10 |
| Black males | 6.19 | 4.13 | 66.65 | 6.65 | 3.74 | 56.21 | 6.72 | 3.87 | 57.66 |
| Hispanic males | 3.93 | 2.51 | 63.80 | 6.54 | 3.15 | 48.19 | 6.62 | 3.38 | 51.10 |
| American Indian males | 0.34 | 0.33 | 98.79 | 0.41 | 0.34 | 81.42 | 0.42 | 0.36 | 84.21 |
| White females | 38.41 | 42.62 | 110.94 | 34.69 | 42.99 | 123.93 | 34.41 | 42.36 | 123.07 |
| Asian females | 0.77 | 1.17 | 152.11 | 1.57 | 2.04 | 129.95 | 1.66 | 2.27 | 136.70 |
| Black females | 6.67 | 5.70 | 85.44 | 6.90 | 5.82 | 84.35 | 6.94 | 6.09 | 87.69 |
| Hispanic females | 3.65 | 2.84 | 77.59 | 5.46 | 3.98 | 72.96 | 5.58 | 4.30 | 76.97 |
| American Indian females | 0.33 | 0.42 | 126.31 | 0.40 | 0.47 | 119.09 | 0.40 | 0.50 | 124.16 |
| Race/ethnicity and sex | 1992 | | | 1993 | | | 1994 | | |
| | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation | Percent of 18-24 years population | Percent of undergraduate enrollment | Index of representation |
| White males | 35.21 | 33.74 | 95.83 | 35.03 | 33.30 | 95.07 | 34.80 | 32.59 | 93.64 |
| Asian males | 1.84 | 2.48 | 134.67 | 1.92 | 2.61 | 135.60 | 1.98 | 2.76 | 139.36 |
| Black males | 6.79 | 3.99 | 58.77 | 6.83 | 4.10 | 59.96 | 6.91 | 4.14 | 59.99 |
| Hispanic males | 6.68 | 3.65 | 54.59 | 6.70 | 3.82 | 57.05 | 6.75 | 4.04 | 59.90 |
| American Indian males | 0.44 | 0.37 | 85.98 | 0.44 | 0.39 | 87.79 | 0.45 | 0.40 | 90.03 |
| White females | 34.12 | 41.76 | 122.37 | 33.90 | 41.21 | 121.58 | 33.62 | 40.73 | 121.14 |
| Asian females | 1.78 | 2.51 | 141.15 | 1.87 | 2.66 | 142.33 | 1.95 | 2.86 | 146.54 |
| Black females | 7.00 | 6.33 | 90.31 | 7.03 | 6.49 | 92.26 | 7.11 | 6.72 | 94.52 |
| Hispanic females | 5.72 | 4.66 | 81.39 | 5.85 | 4.89 | 83.57 | 6.00 | 5.19 | 86.43 |
| American Indian females | 0.42 | 0.52 | 124.22 | 0.42 | 0.54 | 126.20 | 0.43 | 0.57 | 131.52 |

¹The numbers of cases for the percent distributions are presented in appendix table 3-7. Nonresident aliens were not included in these calculations. The numbers displayed may not be exact due to rounding error.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-7. Number of persons 18-24 years of age in total population and total undergraduate enrollment, by race/ethnicity and sex: 1980, 1990-1994¹

| Race/ethnicity and sex | 1980 | | 1990 | | 1991 | | Page 1 of 1 |
|-------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|-------------|
| | 18-24 years population | Undergraduate enrollment | 18-24 years population | Undergraduate enrollment | 18-24 years population | Undergraduate enrollment | |
| Total | 30,103,000 | 10,392,825 | 26,831,000 | 11,784,320 | 26,384,000 | 12,360,130 | |
| White males | 11,715,000 | 4,057,626 | 9,585,000 | 4,165,862 | 9,364,000 | 4,273,310 | |
| Asian males | 236,000 | 129,876 | 448,000 | 250,287 | 460,000 | 284,673 | |
| Black males | 1,864,000 | 428,913 | 1,783,000 | 440,209 | 1,772,000 | 478,648 | |
| Hispanic males | 1,184,000 | 260,800 | 1,754,000 | 371,232 | 1,747,000 | 418,243 | |
| American Indian males | 102,000 | 34,790 | 111,000 | 39,692 | 112,000 | 44,186 | |
| White females | 11,564,000 | 4,429,148 | 9,308,000 | 5,066,228 | 9,080,000 | 5,235,217 | |
| Asian females | 232,000 | 121,837 | 422,000 | 240,847 | 438,000 | 280,493 | |
| Black females | 2,007,000 | 592,008 | 1,850,000 | 685,382 | 1,832,000 | 752,604 | |
| Hispanic females | 1,100,000 | 294,657 | 1,464,000 | 469,138 | 1,473,000 | 531,103 | |
| American Indian females | 99,000 | 43,170 | 106,000 | 55,443 | 106,000 | 61,653 | |
| | 1992 | | 1993 | | 1994 | | |
| Race/ethnicity and sex | 18-24 years population | Undergraduate enrollment | 18-24 years population | Undergraduate enrollment | 18-24 years population | Undergraduate enrollment | |
| Total | 25,942,000 | 12,435,117 | 25,653,000 | 12,213,674 | 25,260,000 | 12,146,792 | |
| White males | 9,134,000 | 4,195,726 | 8,986,000 | 4,067,289 | 8,791,000 | 3,958,270 | |
| Asian males | 478,000 | 308,564 | 493,000 | 318,289 | 501,000 | 335,737 | |
| Black males | 1,761,000 | 496,123 | 1,752,000 | 500,194 | 1,745,000 | 503,381 | |
| Hispanic males | 1,733,000 | 453,488 | 1,720,000 | 467,155 | 1,704,000 | 490,827 | |
| American Indian males | 113,000 | 46,572 | 113,000 | 47,233 | 113,000 | 48,920 | |
| White females | 8,852,000 | 5,192,500 | 8,696,000 | 5,033,796 | 8,493,000 | 4,947,344 | |
| Asian females | 461,000 | 311,899 | 479,000 | 324,604 | 493,000 | 347,394 | |
| Black females | 1,817,000 | 786,609 | 1,804,000 | 792,427 | 1,795,000 | 815,881 | |
| Hispanic females | 1,485,000 | 579,329 | 1,501,000 | 597,193 | 1,516,000 | 630,102 | |
| American Indian females | 108,000 | 64,307 | 109,000 | 65,494 | 109,000 | 68,936 | |

¹Distributions of U.S. Bureau of the Census' estimate of the 18-24 years of age population of the United States are presented in appendix table 3-8.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Appendix table 3-8. U.S. population estimates of persons 18-24, by race/ethnicity, sex, and age: 1980, 1990-1994
 [Numbers in thousands]

Page 1 of 1

| Race/ethnicity and sex | 1980 | | | 1990 | | | 1991 | | |
|-------------------------|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| | Total | 18-19 | 20-24 | Total | 18-19 | 20-24 | Total | 18-19 | 20-24 |
| Total | 30,103 | 8,718 | 21,385 | 26,831 | 7,699 | 19,132 | 26,384 | 6,950 | 19,434 |
| White males | 11,715 | 3,379 | 8,336 | 9,585 | 2,741 | 6,844 | 9,364 | 2,533 | 6,831 |
| Asian males | 236 | 66 | 170 | 448 | 128 | 320 | 460 | 123 | 337 |
| Black males | 1,864 | 578 | 1,286 | 1,783 | 554 | 1,229 | 1,772 | 532 | 1,240 |
| Hispanic males | 1,184 | 344 | 840 | 1,754 | 479 | 1,275 | 1,747 | 459 | 1,288 |
| American Indian males | 102 | 32 | 70 | 111 | 34 | 77 | 112 | 33 | 79 |
| White females | 11,564 | 3,311 | 8,253 | 9,308 | 2,645 | 6,663 | 9,080 | 2,428 | 6,652 |
| Asian females | 232 | 61 | 171 | 422 | 121 | 301 | 438 | 118 | 320 |
| Black females | 2,007 | 598 | 1,409 | 1,850 | 555 | 1,295 | 1,832 | 530 | 1,302 |
| Hispanic females | 1,100 | 319 | 781 | 1,464 | 410 | 1,054 | 1,473 | 163 | 1,310 |
| American Indian females | 99 | 30 | 69 | 106 | 32 | 74 | 106 | 31 | 75 |
| 1992 | | | | | | | | | |
| Race/ethnicity and sex | Total | 18-19 | 20-24 | Total | 18-19 | 20-24 | Total | 18-19 | 20-24 |
| Total | 25,942 | 6,868 | 19,074 | 25,653 | 6,868 | 18,785 | 25,260 | 6,907 | 18,353 |
| White males | 9,134 | 2,395 | 6,739 | 8,986 | 2,402 | 6,584 | 8,791 | 2,410 | 6,381 |
| Asian males | 478 | 123 | 355 | 493 | 128 | 365 | 501 | 131 | 370 |
| Black males | 1,761 | 508 | 1,253 | 1,752 | 502 | 1,250 | 1,745 | 503 | 1,242 |
| Hispanic males | 1,733 | 445 | 1,288 | 1,720 | 439 | 1,281 | 1,704 | 447 | 1,257 |
| American Indian males | 113 | 31 | 82 | 113 | 31 | 82 | 113 | 31 | 82 |
| White females | 8,852 | 2,301 | 6,551 | 8,696 | 2,299 | 6,397 | 8,493 | 2,302 | 6,191 |
| Asian females | 461 | 119 | 342 | 479 | 122 | 357 | 493 | 126 | 367 |
| Black females | 1,817 | 509 | 1,308 | 1,804 | 502 | 1,302 | 1,795 | 503 | 1,292 |
| Hispanic females | 1,485 | 406 | 1,079 | 1,501 | 412 | 1,089 | 1,516 | 423 | 1,093 |
| American Indian females | 108 | 31 | 77 | 109 | 31 | 78 | 109 | 31 | 78 |

SOURCES: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 601, Projections of the Population of the United States: 2050, U.S. Government Printing Office, Washington, D.C., 1975. U.S. Bureau of the Census, Current Population Reports, P25-1095, U.S. Population Estimates, by 1975 to Age, Sex, Race, and Hispanic Origin: 1980 to 1991. U.S. Government Printing Office, Washington, D.C., 1993. U.S. Bureau of the Census, Current Population Reports, P25-1092, Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050, U.S. Government Printing Office, Washington, D.C., 1992.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-9. Total undergraduate enrollment at all institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|------------|------------|------------|------------|------------|------------|
| Total undergraduate enrollment: | | | | | | | |
| Total, all races and ethnicities..... | 9,536,927 | 10,603,579 | 12,011,657 | 12,595,335 | 12,693,778 | 12,482,813 | 12,417,701 |
| Non-resident aliens..... | 144,535 | 210,753 | 227,337 | 235,205 | 258,661 | 269,139 | 270,909 |
| White, non-Hispanic..... | 7,759,913 | 8,486,774 | 9,232,090 | 9,508,527 | 9,388,226 | 9,101,085 | 8,905,614 |
| Asian or Pacific Islander..... | 172,633 | 251,713 | 491,134 | 565,166 | 620,463 | 642,893 | 683,131 |
| Underrepresented minorities..... | 1,459,846 | 1,654,339 | 2,061,096 | 2,286,437 | 2,426,428 | 2,469,696 | 2,558,047 |
| Black, non-Hispanic..... | 946,476 | 1,020,921 | 1,125,591 | 1,231,252 | 1,282,732 | 1,292,621 | 1,319,262 |
| American Indian or Alaskan Native..... | 69,955 | 77,961 | 95,135 | 105,839 | 110,879 | 112,727 | 117,856 |
| Hispanic..... | 443,415 | 555,457 | 840,370 | 949,346 | 1,032,817 | 1,064,348 | 1,120,929 |
| Men, all races and ethnicities..... | 4,951,997 | 5,052,234 | 5,396,557 | 5,632,690 | 5,644,113 | 5,547,126 | 5,484,342 |
| Non-resident aliens..... | 97,198 | 140,229 | 129,275 | 133,630 | 143,640 | 146,966 | 147,207 |
| White, non-Hispanic..... | 4,063,605 | 4,057,626 | 4,165,862 | 4,273,310 | 4,195,726 | 4,067,289 | 3,958,270 |
| Asian or Pacific Islander..... | 92,787 | 129,876 | 250,287 | 284,673 | 308,564 | 318,289 | 335,737 |
| Underrepresented minorities..... | 698,407 | 724,503 | 851,133 | 941,077 | 996,183 | 1,014,582 | 1,043,128 |
| Black, non-Hispanic..... | 432,042 | 428,913 | 440,209 | 478,648 | 496,123 | 500,194 | 503,381 |
| American Indian or Alaskan Native..... | 34,894 | 34,790 | 39,692 | 44,186 | 46,572 | 47,233 | 48,920 |
| Hispanic..... | 231,472 | 260,800 | 371,232 | 418,243 | 453,488 | 467,155 | 490,827 |
| Women, all races and ethnicities..... | 4,584,930 | 5,551,345 | 6,615,100 | 6,962,645 | 7,049,665 | 6,935,687 | 6,933,359 |
| Non-resident aliens..... | 47,338 | 70,525 | 98,062 | 101,575 | 115,021 | 122,173 | 123,702 |
| White, non-Hispanic..... | 3,696,308 | 4,429,148 | 5,066,228 | 5,235,217 | 5,192,500 | 5,033,796 | 4,947,344 |
| Asian or Pacific Islander..... | 79,846 | 121,837 | 240,847 | 280,493 | 311,899 | 324,604 | 347,394 |
| Underrepresented minorities..... | 761,439 | 929,835 | 1,209,963 | 1,345,360 | 1,430,245 | 1,455,114 | 1,514,919 |
| Black, non-Hispanic..... | 514,434 | 592,008 | 685,382 | 752,604 | 786,609 | 792,427 | 815,881 |
| American Indian or Alaskan Native..... | 35,062 | 43,170 | 55,443 | 61,653 | 64,307 | 65,494 | 68,936 |
| Hispanic..... | 211,943 | 294,657 | 469,138 | 531,103 | 579,329 | 597,193 | 630,102 |
| Percentage distribution: | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.5% | 2.0% | 1.9% | 1.9% | 2.0% | 2.2% | 2.2% |
| White, non-Hispanic..... | 81.4% | 80.0% | 76.9% | 75.5% | 74.0% | 72.9% | 71.7% |
| Asian or Pacific Islander..... | 1.8% | 2.4% | 4.1% | 4.5% | 4.9% | 5.2% | 5.5% |
| Underrepresented minorities..... | 15.3% | 15.6% | 17.2% | 18.2% | 19.1% | 19.8% | 20.6% |
| Black, non-Hispanic..... | 9.9% | 9.6% | 9.4% | 9.8% | 10.1% | 10.4% | 10.6% |
| American Indian or Alaskan Native..... | 0.7% | 0.7% | 0.8% | 0.8% | 0.9% | 0.9% | 0.9% |
| Hispanic..... | 4.6% | 5.2% | 7.0% | 7.5% | 8.1% | 8.5% | 9.0% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 2.0% | 2.8% | 2.4% | 2.4% | 2.5% | 2.6% | 2.7% |
| White, non-Hispanic..... | 82.1% | 80.3% | 77.2% | 75.9% | 74.3% | 73.3% | 72.2% |
| Asian or Pacific Islander..... | 1.9% | 2.6% | 4.6% | 5.1% | 5.5% | 5.7% | 6.1% |
| Underrepresented minorities..... | 14.1% | 14.3% | 15.8% | 16.7% | 17.6% | 18.3% | 19.0% |
| Black, non-Hispanic..... | 8.7% | 8.5% | 8.2% | 8.5% | 8.8% | 9.0% | 9.2% |
| American Indian or Alaskan Native..... | 0.7% | 0.7% | 0.7% | 0.8% | 0.8% | 0.9% | 0.9% |
| Hispanic..... | 4.7% | 5.2% | 6.9% | 7.4% | 8.0% | 8.4% | 8.9% |

See explanatory information and SOURCES at end of table.

**Appendix table 3-9. Total undergraduate enrollment at all institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 2 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.0% | 1.3% | 1.5% | 1.5% | 1.6% | 1.8% | 1.8% |
| White, non-Hispanic..... | 80.6% | 79.8% | 76.6% | 75.2% | 73.7% | 72.6% | 71.4% |
| Asian or Pacific Islander..... | 1.7% | 2.2% | 3.6% | 4.0% | 4.4% | 4.7% | 5.0% |
| Underrepresented minorities..... | 16.6% | 16.7% | 18.3% | 19.3% | 20.3% | 21.0% | 21.8% |
| Black, non-Hispanic..... | 11.2% | 10.7% | 10.4% | 10.8% | 11.2% | 11.4% | 11.8% |
| American Indian or Alaskan Native..... | 0.8% | 0.8% | 0.8% | 0.9% | 0.9% | 0.9% | 1.0% |
| Hispanic..... | 4.6% | 5.3% | 7.1% | 7.6% | 8.2% | 8.6% | 9.1% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-10. Proportion of 4-year college dominant students participating in key core science and mathematics courses, by race/ethnicity and sex: 1982-1993 cohort

| | White | Black | Hispanic | Asian | Women | Men | Page 1 of 1 |
|---|-------|-------|----------|-------|-------|------|-------------|
| General pre-college mathematics..... | 6.3% | 17.6% | 8.0% | - | 7.9% | 6.7% | |
| Pre-college algebra..... | 11.8 | 18.7 | 21.4 | - | 13.4 | 12.0 | |
| Pre-college algebra..... | 26.1 | 26.1 | 21.5 | 16.5 | 24.9 | 26.7 | |
| Pre-calculus..... | 21.7 | 22.1 | 15.5 | 48.7 | 17.9 | 26.5 | |
| Finite/discrete mathematics..... | 9.7 | 6.2 | 4.8 | 13.9 | 8.5 | 10.1 | |
| Statistics..... | 26.9 | 20.5 | 20.9 | 28.5 | 24.7 | 27.4 | |
| Calculus..... | 32.2 | 18.5 | 26.3 | 63.3 | 23 | 40.3 | |
| Introductory computer science..... | 20.8 | 13 | 12.5 | 14.2 | 17.3 | 21.9 | |
| Computer programming..... | 21.9 | 18.2 | 21.6 | 33.7 | 16.7 | 27.1 | |
| Computer organization and architecture..... | 4.4 | 5.2 | 7.2 | 5.8 | 3 | 6.3 | |
| Data processing..... | 7.1 | 7.1 | 8.1 | 0 | 6.8 | 7.3 | |
| Systems organization and analysis..... | 6 | 5.3 | 5.7 | 10.5 | 4.3 | 7.7 | |
| General biology..... | 32.3 | 41.4 | 29 | 35.7 | 38.6 | 27.1 | |
| Microbiology..... | 7 | 6.2 | 5.3 | 9.7 | 9.9 | 3.7 | |
| Ecology..... | 6.6 | 3.7 | 8.2 | 9 | 7 | 5.8 | |
| Genetics..... | 6.1 | 4.2 | - | 12.9 | 5.8 | 6.2 | |
| Anatomy and physiology..... | 10.1 | 8.9 | 15.1 | 8.5 | 14.4 | 5.6 | |
| Physiology..... | 7.6 | 8.3 | 5.5 | 14.3 | 10.1 | 5.1 | |
| Biochemistry..... | 4.8 | 3.8 | 4.5 | 15.9 | 5.5 | 4.4 | |
| General physical science..... | 6.8 | 17.1 | 5.9 | - | 8.1 | 7.3 | |
| Astronomy..... | 13.4 | 6.6 | 13.3 | 10.8 | 10 | 15.5 | |
| General geology..... | 1.4 | 6.1 | 6.9 | - | 8.9 | 12.4 | |
| General chemistry..... | 34.3 | 22.2 | 30.5 | 59.5 | 29.9 | 37.5 | |
| Organic chemistry..... | 9.5 | 7.3 | 5.6 | 24.8 | 9.6 | 9.6 | |
| Introductory physics..... | 22.7 | 15.7 | 16.1 | 48.5 | 15.1 | 30.3 | |

NOTE: Universe: Students who earned 30 or more credits from 4-year colleges and 10 or fewer credits from 2-year colleges. Weighted N=969,228. - = Too few observations in the sample to produce a reliable estimate.

SOURCE: National Center for Education Statistics High School and Beyond/Sophomore Cohort, 1982-1993 Cohort.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-11. Proportion of community college dominant students participating in key core science, mathematics, and technology courses, by gender: 1982-1993 cohort

Page 1 of 1

| | Women | Men |
|--|-------|------|
| General pre-college mathematics..... | 13.6% | 9.6% |
| Arithmetic, pre-algebra..... | 6.4 | 6.8 |
| Pre-college algebra..... | 26.4 | 30.7 |
| College algebra..... | 13.5 | 20.1 |
| Pre-calculus..... | 4.6 | 8.3 |
| Technical mathematics..... | 6 | 19.4 |
| Business mathematics: pre-college..... | 18.1 | 12.4 |
| | | |
| Introductory computer science..... | 10.4 | 18.1 |
| Computer programming..... | 13.8 | 16.9 |
| Data processing..... | 20.1 | 12.5 |
| | | |
| Electronics technology..... | - | 17.7 |
| Computer technology..... | - | 10.9 |
| | | |
| General biology..... | 15.8 | 13.9 |
| Microbiology..... | 11.1 | - |
| Anatomy and physiology..... | 20.3 | 2.6 |
| Human development..... | 6.9 | - |
| | | |
| Astronomy..... | 4.6 | 5 |
| General chemistry..... | 10.8 | 11.2 |
| Introductory physics..... | - | 10.2 |

NOTE: Universe: Students who earned 30 or more credits from 4-year colleges and 10 or fewer credits from 2-year colleges. - = Too few observations in the sample to produce a reliable estimate.

SOURCE: National Center for Education Statistics, High School and Beyond/Sophomore Cohort, 1982-1993 Cohort

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-12. Total enrollment at 2-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total enrollment | | | | | | | |
| Total, all races and ethnicities..... | 3,719,873 | 4,381,779 | 5,126,629 | 5,572,644 | 5,641,541 | 5,479,815 | 5,422,242 |
| Non-resident aliens..... | 40,440 | 62,363 | 74,831 | 73,665 | 90,557 | 91,595 | 92,092 |
| White, non-Hispanic..... | 2,945,192 | 3,439,968 | 3,862,573 | 4,125,453 | 4,057,223 | 3,879,659 | 3,760,725 |
| Asian or Pacific Islander..... | 78,038 | 123,876 | 215,506 | 258,244 | 292,505 | 298,636 | 316,094 |
| Underrepresented minorities..... | 656,202 | 755,572 | 973,719 | 1,115,282 | 1,201,256 | 1,209,925 | 1,253,331 |
| Black, non-Hispanic..... | 407,375 | 452,325 | 501,766 | 566,040 | 589,641 | 585,835 | 600,743 |
| American Indian or Alaskan Native..... | 38,606 | 44,759 | 51,677 | 59,230 | 60,339 | 60,476 | 62,188 |
| Hispanic..... | 210,221 | 258,488 | 420,276 | 490,012 | 551,276 | 563,614 | 590,400 |
| Men, all races and ethnicities..... | 1,897,687 | 1,985,211 | 2,187,395 | 2,371,462 | 2,380,155 | 2,312,351 | 2,279,995 |
| Non-resident aliens..... | 24,788 | 38,529 | 37,058 | 38,135 | 45,657 | 45,191 | 45,319 |
| White, non-Hispanic..... | 1,507,456 | 1,549,876 | 1,642,810 | 1,750,720 | 1,705,468 | 1,631,398 | 1,577,034 |
| Asian or Pacific Islander..... | 42,006 | 62,939 | 108,274 | 128,816 | 143,283 | 145,879 | 153,680 |
| Underrepresented minorities..... | 323,437 | 333,867 | 399,253 | 453,791 | 485,747 | 489,883 | 503,962 |
| Black, non-Hispanic..... | 190,816 | 190,199 | 191,072 | 213,086 | 218,216 | 217,273 | 220,630 |
| American Indian or Alaskan Native..... | 19,177 | 19,652 | 21,236 | 24,410 | 24,768 | 24,850 | 25,144 |
| Hispanic..... | 113,443 | 124,016 | 186,945 | 216,295 | 242,763 | 247,760 | 258,188 |
| Women, all races and ethnicities..... | 1,822,186 | 2,396,568 | 2,939,234 | 3,201,182 | 3,261,386 | 3,167,464 | 3,142,247 |
| Non-resident aliens..... | 15,652 | 23,834 | 37,773 | 35,530 | 44,900 | 46,404 | 46,773 |
| White, non-Hispanic..... | 1,437,736 | 1,890,093 | 2,219,763 | 2,374,733 | 2,351,755 | 2,248,261 | 2,183,691 |
| Asian or Pacific Islander..... | 36,032 | 60,937 | 107,232 | 129,428 | 149,222 | 152,757 | 162,414 |
| Underrepresented minorities..... | 332,766 | 421,704 | 574,466 | 661,491 | 715,509 | 720,042 | 749,369 |
| Black, non-Hispanic..... | 216,559 | 262,126 | 310,694 | 352,954 | 371,425 | 368,562 | 380,113 |
| American Indian or Alaskan Native..... | 19,429 | 25,106 | 30,441 | 34,820 | 35,571 | 35,626 | 37,044 |
| Hispanic..... | 96,778 | 134,472 | 233,331 | 273,717 | 308,513 | 315,854 | 332,212 |
| Percentage distribution | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.1% | 1.4% | 1.5% | 1.3% | 1.6% | 1.7% | 1.7% |
| White, non-Hispanic..... | 79.2% | 78.5% | 75.3% | 74.0% | 71.9% | 70.8% | 69.4% |
| Asian or Pacific Islander..... | 2.1% | 2.8% | 4.2% | 4.6% | 5.2% | 5.4% | 5.8% |
| Underrepresented minorities..... | 17.6% | 17.2% | 19.0% | 20.0% | 21.3% | 22.1% | 23.1% |
| Black, non-Hispanic..... | 11.0% | 10.3% | 9.8% | 10.2% | 10.5% | 10.7% | 11.1% |
| American Indian or Alaskan Native..... | 1.0% | 1.0% | 1.0% | 1.1% | 1.1% | 1.1% | 1.1% |
| Hispanic..... | 5.7% | 5.9% | 8.2% | 8.8% | 9.8% | 10.3% | 10.9% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.3% | 1.9% | 1.7% | 1.6% | 1.9% | 2.0% | 2.0% |
| White, non-Hispanic..... | 79.4% | 78.1% | 75.1% | 73.8% | 71.7% | 70.6% | 69.2% |
| Asian or Pacific Islander..... | 2.2% | 3.2% | 4.9% | 5.4% | 6.0% | 6.3% | 6.7% |
| Underrepresented minorities..... | 17.0% | 16.8% | 18.3% | 19.1% | 20.4% | 21.2% | 22.1% |
| Black, non-Hispanic..... | 10.1% | 9.6% | 8.7% | 9.0% | 9.2% | 9.4% | 9.7% |
| American Indian or Alaskan Native..... | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.1% | 1.1% |
| Hispanic..... | 6.0% | 6.2% | 8.5% | 9.1% | 10.2% | 10.7% | 11.3% |

See explanatory information and SOURCES at end of table.

**Appendix table 3-12. Total enrollment at 2-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 2 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 0.9% | 1.0% | 1.3% | 1.1% | 1.4% | 1.5% | 1.5% |
| White, non-Hispanic..... | 78.9% | 78.9% | 75.5% | 74.2% | 72.1% | 71.0% | 69.5% |
| Asian or Pacific Islander..... | 2.0% | 2.5% | 3.6% | 4.0% | 4.6% | 4.8% | 5.2% |
| Underrepresented minorities..... | 18.3% | 17.6% | 19.5% | 20.7% | 21.9% | 22.7% | 23.8% |
| Black, non-Hispanic..... | 11.9% | 10.9% | 10.6% | 11.0% | 11.4% | 11.6% | 12.1% |
| American Indian or Alaskan Native..... | 1.1% | 1.0% | 1.0% | 1.1% | 1.1% | 1.1% | 1.2% |
| Hispanic..... | 5.3% | 5.6% | 7.9% | 8.6% | 9.5% | 10.0% | 10.6% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-13. Full-time enrollment at 2-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Full-time enrollment: | | | | | | | |
| Total, all races and ethnicities..... | 1,578,879 | 1,673,285 | 1,854,914 | 2,051,499 | 2,052,345 | 2,018,843 | 2,003,156 |
| Non-resident aliens..... | 23,455 | 38,130 | 39,170 | 39,622 | 45,552 | 48,065 | 49,780 |
| White, non-Hispanic..... | 1,203,160 | 1,256,837 | 1,365,469 | 1,479,114 | 1,449,485 | 1,399,190 | 1,355,666 |
| Asian or Pacific Islander..... | 32,907 | 45,678 | 75,777 | 92,123 | 102,247 | 108,109 | 116,879 |
| Underrepresented minorities..... | 319,358 | 332,640 | 374,498 | 440,640 | 455,061 | 463,479 | 480,831 |
| Black, non-Hispanic..... | 208,009 | 213,043 | 201,362 | 233,333 | 232,604 | 233,932 | 239,240 |
| American Indian or Alaskan Native..... | 17,330 | 17,040 | 19,987 | 24,165 | 24,987 | 25,337 | 26,239 |
| Hispanic..... | 94,018 | 102,557 | 153,149 | 183,142 | 197,470 | 204,210 | 215,352 |
| Men, all races and ethnicities..... | 860,049 | 842,831 | 869,326 | 952,894 | 939,615 | 919,688 | 901,363 |
| Non-resident aliens..... | 15,919 | 26,360 | 20,476 | 21,372 | 23,747 | 24,417 | 25,524 |
| White, non-Hispanic..... | 665,656 | 641,136 | 650,420 | 699,036 | 674,998 | 649,203 | 622,180 |
| Asian or Pacific Islander..... | 19,029 | 25,092 | 40,625 | 48,455 | 52,714 | 55,237 | 59,568 |
| Underrepresented minorities..... | 159,446 | 150,243 | 157,805 | 184,031 | 188,156 | 190,831 | 194,091 |
| Black, non-Hispanic..... | 98,356 | 92,731 | 81,692 | 93,523 | 90,536 | 90,959 | 90,322 |
| American Indian or Alaskan Native..... | 8,984 | 7,994 | 8,800 | 10,475 | 10,725 | 10,964 | 11,020 |
| Hispanic..... | 52,106 | 49,519 | 67,313 | 80,033 | 86,895 | 88,908 | 92,749 |
| Women, all races and ethnicities..... | 718,830 | 830,454 | 985,588 | 1,098,605 | 1,112,730 | 1,099,155 | 1,101,793 |
| Non-resident aliens..... | 7,536 | 11,770 | 18,694 | 18,250 | 21,805 | 23,648 | 24,256 |
| White, non-Hispanic..... | 537,504 | 615,701 | 715,049 | 780,078 | 774,487 | 749,987 | 733,486 |
| Asian or Pacific Islander..... | 13,878 | 20,586 | 35,152 | 43,668 | 49,533 | 52,872 | 57,311 |
| Underrepresented minorities..... | 159,912 | 182,397 | 216,693 | 256,609 | 266,905 | 272,648 | 286,740 |
| Black, non-Hispanic..... | 109,653 | 120,313 | 119,670 | 139,810 | 142,068 | 142,973 | 148,918 |
| American Indian or Alaskan Native..... | 8,346 | 9,046 | 11,187 | 13,690 | 14,262 | 14,373 | 15,219 |
| Hispanic..... | 41,912 | 53,038 | 85,836 | 103,109 | 110,575 | 115,302 | 122,603 |
| Percentage distribution: | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.5% | 2.3% | 2.1% | 1.9% | 2.2% | 2.4% | 2.5% |
| White, non-Hispanic..... | 76.2% | 75.1% | 73.6% | 72.1% | 70.6% | 69.3% | 67.7% |
| Asian or Pacific Islander..... | 2.1% | 2.7% | 4.1% | 4.5% | 5.0% | 5.4% | 5.8% |
| Underrepresented minorities..... | 20.2% | 19.9% | 20.2% | 21.5% | 22.2% | 23.0% | 24.0% |
| Black, non-Hispanic..... | 13.2% | 12.7% | 10.9% | 11.4% | 11.3% | 11.6% | 11.9% |
| American Indian or Alaskan Native..... | 1.1% | 1.0% | 1.1% | 1.2% | 1.2% | 1.3% | 1.3% |
| Hispanic..... | 6.0% | 6.1% | 8.3% | 8.9% | 9.6% | 10.1% | 10.8% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.9% | 3.1% | 2.4% | 2.2% | 2.5% | 2.7% | 2.8% |
| White, non-Hispanic..... | 77.4% | 76.1% | 74.8% | 73.4% | 71.8% | 70.6% | 69.0% |
| Asian or Pacific Islander..... | 2.2% | 3.0% | 4.7% | 5.1% | 5.6% | 6.0% | 6.6% |
| Underrepresented minorities..... | 18.5% | 17.8% | 18.2% | 19.3% | 20.0% | 20.7% | 21.5% |
| Black, non-Hispanic..... | 11.4% | 11.0% | 9.4% | 9.8% | 9.6% | 9.9% | 10.0% |
| American Indian or Alaskan Native..... | 1.0% | 0.9% | 1.0% | 1.1% | 1.1% | 1.2% | 1.2% |
| Hispanic..... | 6.1% | 5.9% | 7.7% | 8.4% | 9.2% | 9.7% | 10.3% |

See explanatory information and SOURCES at end of table.

**Appendix table 3-13. Full-time enrollment at 2-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 2 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.0% | 1.4% | 1.9% | 1.7% | 2.0% | 2.2% | 2.2% |
| White, non-Hispanic..... | 74.8% | 74.1% | 72.6% | 71.0% | 69.6% | 68.2% | 66.6% |
| Asian or Pacific Islander..... | 1.9% | 2.5% | 3.6% | 4.0% | 4.5% | 4.8% | 5.2% |
| Underrepresented minorities..... | 22.2% | 22.0% | 22.0% | 23.4% | 24.0% | 24.8% | 26.0% |
| Black, non-Hispanic..... | 15.3% | 14.5% | 12.1% | 12.7% | 12.8% | 13.0% | 13.5% |
| American Indian or Alaskan Native..... | 1.2% | 1.1% | 1.1% | 1.2% | 1.3% | 1.3% | 1.4% |
| Hispanic..... | 5.8% | 6.4% | 8.7% | 9.4% | 9.9% | 10.5% | 11.1% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey, tabulations by National Science Foundation/SRS

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-14. Percentage distribution of persons 18-24 years of age in total population, total student enrollment in 2-year institutions, and the index of representation, by race/ethnicity and sex: 1980, 1990-1994¹

Page 1 of 1

| Race/ethnicity and sex | 1980 | | | 1990 | | | 1991 | | |
|-------------------------|-----------------------------------|--------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------|
| | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation |
| White males | 38.92 | 35.88 | 92.20 | 35.72 | 32.52 | 91.03 | 35.49 | 31.84 | 89.70 |
| Asian males | 0.78 | 1.46 | 185.86 | 1.67 | 2.14 | 128.36 | 1.74 | 2.34 | 134.36 |
| Black males | 6.19 | 4.40 | 71.11 | 6.65 | 3.78 | 56.92 | 6.72 | 3.88 | 57.70 |
| Hispanic males | 3.93 | 2.87 | 73.00 | 6.54 | 3.70 | 56.61 | 6.62 | 3.93 | 59.40 |
| American Indian males | 0.34 | 0.45 | 134.27 | 0.41 | 0.42 | 101.61 | 0.42 | 0.44 | 104.57 |
| White females | 38.41 | 43.76 | 113.91 | 34.69 | 43.94 | 126.66 | 34.41 | 43.18 | 125.48 |
| Asian females | 0.77 | 1.41 | 183.05 | 1.57 | 2.12 | 134.96 | 1.66 | 2.35 | 141.78 |
| Black females | 6.67 | 6.07 | 91.02 | 6.90 | 6.15 | 89.20 | 6.94 | 6.42 | 92.44 |
| Hispanic females | 3.65 | 3.11 | 85.20 | 5.46 | 4.62 | 84.65 | 5.58 | 4.98 | 89.16 |
| American Indian females | 0.33 | 0.58 | 176.74 | 0.40 | 0.60 | 152.53 | 0.40 | 0.63 | 157.61 |
| 1992 | | | 1993 | | | 1994 | | | |
| Race/ethnicity and sex | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 2-year college enrollment | Index of representation |
| | 35.21 | 30.72 | 87.26 | 35.03 | 30.28 | 86.43 | 34.80 | 29.59 | 85.02 |
| White males | 35.21 | 30.72 | 87.26 | 35.03 | 30.28 | 86.43 | 34.80 | 29.59 | 85.02 |
| Asian males | 1.84 | 2.58 | 140.09 | 1.92 | 2.71 | 140.88 | 1.98 | 2.88 | 145.37 |
| Black males | 6.79 | 3.93 | 57.91 | 6.83 | 4.03 | 59.04 | 6.91 | 4.14 | 59.92 |
| Hispanic males | 6.68 | 4.37 | 65.47 | 6.70 | 4.60 | 68.58 | 6.75 | 4.84 | 71.81 |
| American Indian males | 0.44 | 0.45 | 102.43 | 0.44 | 0.46 | 104.70 | 0.45 | 0.47 | 105.45 |
| White females | 34.12 | 42.37 | 124.16 | 33.90 | 41.73 | 123.09 | 33.62 | 40.97 | 121.85 |
| Asian females | 1.78 | 2.69 | 151.27 | 1.87 | 2.84 | 151.83 | 1.95 | 3.05 | 156.12 |
| Black females | 7.00 | 6.69 | 95.53 | 7.03 | 6.84 | 97.27 | 7.11 | 7.13 | 100.36 |
| Hispanic females | 5.72 | 5.56 | 97.09 | 5.85 | 5.86 | 100.18 | 6.00 | 6.23 | 103.85 |
| American Indian females | 0.42 | 0.64 | 153.92 | 0.42 | 0.66 | 155.61 | 0.43 | 0.69 | 161.06 |

¹The number of cases for the percent distributions are presented in appendix table 3-15. Nonresident aliens were not included in these calculations. The numbers displayed may not be exact due to rounding error.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-15. Number of persons 18-24 years of age in total population and total 2-year college enrollment, by race/ethnicity¹ and sex:
1980, 1990-1994**

Page 1 of 1

| Race/ethnicity and sex | 1980 | | 1990 | | 1991 | |
|-------------------------|------------------------|---------------------------------|------------------------|---------------------------------|------------------------|---------------------------------|
| | 18-24 years population | Total 2-year college enrollment | 18-24 years population | Total 2-year college enrollment | 18-24 years population | Total 2-year college enrollment |
| Total | 30,103,000 | 4,319,416 | 26,831,000 | 5,051,798 | 26,384,000 | 5,498,979 |
| White males | 11,715,000 | 1,549,876 | 9,585,000 | 1,642,810 | 9,364,000 | 1,750,720 |
| Asian males | 236,000 | 62,939 | 448,000 | 108,274 | 460,000 | 128,816 |
| Black males | 1,864,000 | 190,199 | 1,783,000 | 191,072 | 1,772,000 | 213,086 |
| Hispanic males | 1,184,000 | 124,016 | 1,754,000 | 186,945 | 1,747,000 | 216,295 |
| American Indian males | 102,000 | 19,652 | 111,000 | 21,236 | 112,000 | 24,410 |
| White females | 11,564,000 | 1,890,093 | 9,308,000 | 2,219,763 | 9,080,000 | 2,374,733 |
| Asian females | 232,000 | 60,937 | 422,000 | 107,232 | 438,000 | 129,428 |
| Black females | 2,007,000 | 262,126 | 1,850,000 | 310,694 | 1,832,000 | 352,954 |
| Hispanic females | 1,100,000 | 134,472 | 1,464,000 | 233,331 | 1,473,000 | 273,717 |
| American Indian females | 99,000 | 25,106 | 106,000 | 30,441 | 106,000 | 34,820 |
| Race/ethnicity and sex | 1992 | | 1993 | | 1994 | |
| | 18-24 years population | Total 2-year college enrollment | 18-24 years population | Total 2-year college enrollment | 18-24 years population | Total 2-year college enrollment |
| Total | 25,942,000 | 5,550,984 | 25,653,000 | 5,388,220 | 25,260,000 | 5,330,150 |
| White males | 9,134,000 | 1,705,468 | 8,986,000 | 1,631,398 | 8,791,000 | 1,577,034 |
| Asian males | 478,000 | 143,283 | 493,000 | 145,879 | 501,000 | 153,680 |
| Black males | 1,761,000 | 218,216 | 1,752,000 | 217,273 | 1,745,000 | 220,630 |
| Hispanic males | 1,733,000 | 242,763 | 1,720,000 | 247,760 | 1,704,000 | 258,188 |
| American Indian males | 113,000 | 24,768 | 113,000 | 24,850 | 113,000 | 25,144 |
| White females | 8,852,000 | 2,351,755 | 8,696,000 | 2,248,261 | 8,493,000 | 2,183,691 |
| Asian females | 461,000 | 149,222 | 479,000 | 152,757 | 493,000 | 162,414 |
| Black females | 1,817,000 | 371,425 | 1,804,000 | 368,562 | 1,795,000 | 380,113 |
| Hispanic females | 1,485,000 | 308,513 | 1,501,000 | 315,854 | 1,516,000 | 332,212 |
| American Indian females | 108,000 | 35,571 | 109,000 | 35,626 | 109,000 | 37,044 |

¹Nonresident aliens were not included in these calculations. The numbers displayed may not be exact due to rounding error.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-16. Percentage of undergraduates who reported a disability and among those with disabilities, the type of disability: 1995-1996

Page 1 of 3

| | Type of disability reported among those reporting a disability | | | | | | |
|-------------------------------------|--|--------|---------|--------|------------|---------------------|-------|
| | Any disabilities | Visual | Hearing | Speech | Orthopedic | Learning disability | Other |
| Total..... | 5.5 | 16.3 | 16.3 | 3.0 | 22.9 | 29.2 | 21.2 |
| Age as of 12/31/95 | | | | | | | |
| 18 years or younger..... | 4.5 | 18.7 | 11.4 | 4.2 | 6.1 | 40.7 | 22.0 |
| 19-23 years..... | 4.7 | 15.4 | 16.1 | 3.8 | 9.6 | 42.9 | 19.4 |
| 24-29 years..... | 4.2 | 14.5 | 19.6 | 4.5 | 20.8 | 28.5 | 22.9 |
| 30-39 years..... | 6.5 | 19.2 | 14.7 | 1.3 | 33.1 | 19.8 | 19.9 |
| 40 years or older..... | 10.3 | 16.1 | 17.7 | 1.6 | 44.3 | 10.1 | 23.9 |
| Single parent | | | | | | | |
| No..... | 5.4 | 17.0 | 16.4 | 3.1 | 23.5 | 30.0 | 18.7 |
| Yes..... | 6.4 | 11.6 | 15.2 | 2.5 | 18.3 | 23.6 | 40.1 |
| Number of dependents | | | | | | | |
| None..... | 5.1 | 18.0 | 15.7 | 2.8 | 19.9 | 32.8 | 18.9 |
| One or more..... | 6.8 | 12.4 | 17.6 | 3.5 | 29.9 | 20.8 | 26.5 |
| Average hours worked while enrolled | | | | | | | |
| Did not work..... | 9.2 | 11.7 | 13.6 | 1.9 | 35.0 | 22.2 | 29.5 |
| 1-15 hours..... | 4.8 | 17.4 | 10.9 | 2.8 | 17.8 | 37.9 | 20.8 |
| 16-20 hours..... | 3.6 | 10.7 | 21.0 | 5.3 | 10.1 | 56.6 | 7.6 |
| 21-34 hours..... | 5.8 | 15.5 | 18.7 | 6.8 | 12.2 | 36.7 | 16.3 |
| 35 or more hours..... | 4.1 | 25.1 | 17.7 | 1.4 | 21.0 | 20.8 | 18.0 |
| Level of institution | | | | | | | |
| Less-than-2-year..... | 8.8 | 18.4 | 19.4 | 0.6 | 34.4 | 20.2 | 20.3 |
| 2-year..... | 5.9 | 17.1 | 16.3 | 2.3 | 24.7 | 28.9 | 21.1 |
| 4-year..... | 4.7 | 16.0 | 15.3 | 4.6 | 19.2 | 29.7 | 20.7 |
| Institution type | | | | | | | |
| Public..... | 5.3 | 17.0 | 17.3 | 3.2 | 22.5 | 27.6 | 21.0 |
| Less-than-2-year..... | 7.4 | 28.0 | 18.9 | 0.0 | 13.4 | 30.5 | 13.0 |
| 2-year..... | 5.9 | 17.2 | 16.9 | 2.3 | 24.0 | 29.1 | 21.1 |
| 4-year non-doctorate-granting..... | 5.6 | 13.0 | 20.2 | 5.2 | 28.4 | 22.4 | 17.8 |
| Doctorate-granting..... | 3.5 | 18.9 | 15.4 | 4.9 | 11.5 | 26.7 | 25.7 |
| Private not-for-profit..... | 5.6 | 17.6 | 11.1 | 3.7 | 19.2 | 36.0 | 18.9 |
| Less-than-4-year..... | 8.0 | 24.2 | 16.4 | 2.2 | 33.3 | 12.9 | 20.2 |
| 4-year non-doctorate-granting..... | 5.9 | 17.6 | 7.1 | 3.2 | 14.3 | 42.4 | 20.6 |
| Doctorate-granting..... | 4.3 | 14.1 | 19.5 | 5.6 | 25.5 | 29.9 | 13.8 |
| Private for-profit..... | 7.3 | 13.1 | 15.5 | 0.6 | 38.7 | 23.1 | 23.5 |
| More than one institution..... | 6.8 | 10.6 | 18.7 | 1.6 | 19.2 | 37.5 | 25.2 |
| Class level | | | | | | | |
| First-year beginning..... | 5.9 | 15.2 | 12.4 | 3.7 | 17.2 | 38.1 | 21.4 |
| Other first year..... | 6.6 | 20.9 | 16.3 | 2.7 | 27.7 | 22.1 | 20.1 |
| Second year..... | 4.6 | 9.8 | 18.4 | 3.4 | 20.6 | 31.3 | 21.3 |
| Third year..... | 5.1 | 17.9 | 18.0 | 3.6 | 26.0 | 36.7 | 13.9 |
| Fourth or fifth year..... | 4.4 | 18.0 | 17.8 | 2.4 | 19.7 | 22.6 | 23.3 |
| Unclassified..... | 5.5 | 7.7 | 20.4 | 0.0 | 24.6 | 27.3 | 37.8 |
| Attendance intensity | | | | | | | |
| Exclusively full-time..... | 5.7 | 15.1 | 15.5 | 2.3 | 23.2 | 32.0 | 19.4 |
| Mixed full-time and part-time..... | 4.6 | 17.3 | 16.4 | 2.6 | 19.7 | 29.9 | 25.7 |
| Exclusively part-time..... | 5.5 | 17.9 | 18.6 | 4.4 | 24.5 | 24.6 | 19.8 |

See explanatory information and SOURCES at end of table.

Appendix table 3-16. Percentage of undergraduates who reported a disability and among those with disabilities, the type of disability: 1995-1996

Page 2 of 3

| | Type of disability reported among those reporting a disability | | | | | | |
|--|--|--------|---------|--------|------------|---------------------|-------|
| | Any disabilities | Visual | Hearing | Speech | Orthopedic | Learning disability | Other |
| Total..... | 5.5 | 16.3 | 16.3 | 3.0 | 22.9 | 29.2 | 21.2 |
| Attendance status | | | | | | | |
| Full-time, full year..... | 5.3 | 17.5 | 14.7 | 2.5 | 17.7 | 33.9 | 22.1 |
| Full-time, part year..... | 6.9 | 10.1 | 15.0 | 1.3 | 34.4 | 25.7 | 18.9 |
| Part-time, full year..... | 5.5 | 19.4 | 22.5 | 3.1 | 17.5 | 28.5 | 21.7 |
| Part-time, part year..... | 5.3 | 15.6 | 13.2 | 5.0 | 30.2 | 23.5 | 20.8 |
| Undergraduate program | | | | | | | |
| Certificate..... | 7.2 | 25.5 | 18.6 | 1.3 | 30.5 | 19.9 | 13.5 |
| Associate's degree..... | 6.1 | 11.8 | 16.5 | 3.6 | 23.5 | 32.8 | 23.3 |
| Bachelor's degree..... | 4.6 | 15.8 | 15.3 | 3.2 | 19.3 | 30.0 | 21.9 |
| Nondegree program..... | 3.8 | low n | low n | low n | low n | low n | low n |
| Gender | | | | | | | |
| Male..... | 6.3 | 14.7 | 19.8 | 4.2 | 23.0 | 27.1 | 19.9 |
| Female..... | 4.9 | 18.0 | 12.8 | 1.8 | 22.7 | 31.4 | 22.5 |
| Race/ethnicity | | | | | | | |
| White; non-Hispanic..... | 6.2 | 15.8 | 17.1 | 1.8 | 22.6 | 31.3 | 20.6 |
| Asian/Pacific Islander..... | 1.9 | low n | low n | low n | low n | low n | low n |
| Black; non-Hispanic..... | 3.4 | 11.7 | 11.3 | 1.7 | 31.3 | 18.0 | 34.2 |
| Hispanic..... | 4.1 | 19.1 | 17.5 | 16.3 | 17.3 | 23.7 | 14.6 |
| American Indian/Alaskan Native..... | 13.4 | low n | low n | low n | low n | low n | low n |
| Dependency status | | | | | | | |
| Dependent..... | 4.6 | 16.8 | 13.6 | 4.3 | 9.0 | 44.2 | 19.0 |
| Independent..... | 6.4 | 16.0 | 18.1 | 2.1 | 32.4 | 19.0 | 22.6 |
| Dependency status | | | | | | | |
| Dependent..... | 4.6 | 16.8 | 13.6 | 4.3 | 9.0 | 44.2 | 19.0 |
| Independent; No dependents, unmarried..... | 7.0 | 22.8 | 11.9 | 0.8 | 34.4 | 19.4 | 20.4 |
| Independent; No dependents, married..... | 4.5 | 11.4 | 36.8 | 0.0 | 36.4 | 11.0 | 14.2 |
| Independent; With dependents..... | 6.8 | 12.4 | 17.6 | 3.5 | 29.9 | 20.8 | 26.5 |
| Income and dependency status | | | | | | | |
| Dependent; Less than \$20,000..... | 4.4 | 21.5 | 9.2 | 10.6 | 9.2 | 43.6 | 9.7 |
| Dependent; \$20,000-\$39,999..... | 4.1 | 16.9 | 8.8 | 4.1 | 11.6 | 45.1 | 21.4 |
| Dependent; \$40,000-\$59,999..... | 4.3 | 16.5 | 19.9 | 0.7 | 12.2 | 36.4 | 27.1 |
| Dependent; \$60,000-\$79,999..... | 4.2 | 15.7 | 15.6 | 1.5 | 5.7 | 40.9 | 22.3 |
| Dependent; \$80,000-\$99,999..... | 5.5 | 5.6 | 28.4 | 14.5 | 2.7 | 42.6 | 10.8 |
| Dependent; \$100,000 or more..... | 6.4 | 19.9 | 5.2 | 0.3 | 7.7 | 58.4 | 16.1 |
| Independent; Less than \$10,000..... | 7.4 | 9.7 | 8.1 | 3.0 | 32.7 | 27.0 | 32.6 |
| Independent; \$10,000-\$19,999..... | 7.7 | 21.1 | 12.4 | 1.5 | 28.6 | 18.0 | 27.1 |
| Independent; \$20,000-\$29,999..... | 6.2 | 17.8 | 30.3 | 4.3 | 31.2 | 15.4 | 12.8 |
| Independent; \$30,000-\$49,999..... | 5.7 | 22.1 | 28.2 | 0.1 | 36.5 | 12.5 | 11.9 |
| Independent; \$50,000 or more..... | 4.4 | 9.5 | 25.9 | 1.0 | 36.1 | 15.4 | 15.8 |
| Marital status | | | | | | | |
| Not married..... | 5.3 | 17.8 | 13.5 | 3.0 | 17.2 | 34.1 | 22.8 |
| Married..... | 5.8 | 13.6 | 25.2 | 3.0 | 37.1 | 14.8 | 17.0 |
| Separated..... | 9.1 | 2.5 | 13.0 | 1.2 | 45.9 | 26.8 | 14.5 |

See explanatory information and SOURCES at end of table.

Appendix table 3-16. Percentage of undergraduates who reported a disability and among those with disabilities, the type of disability: 1995-1996

Page 3 of 3

| | Type of disability reported among those reporting a disability | | | | | | |
|---|--|--------|---------|--------|------------|---------------------|-------|
| | Any disabilities | Visual | Hearing | Speech | Orthopedic | Learning disability | Other |
| Parents' education | | | | | | | |
| Less than high school diploma..... | 7.1 | 16.1 | 20.9 | 4.1 | 36.8 | 15.9 | 20.4 |
| High school diploma or equivalent..... | 5.6 | 23.7 | 17.9 | 2.3 | 25.7 | 20.9 | 17.4 |
| Some postsecondary education..... | 5.8 | 14.3 | 14.6 | 0.4 | 23.0 | 37.5 | 20.9 |
| Bachelor's degree or higher..... | 5.4 | 13.4 | 17.9 | 3.8 | 12.7 | 41.7 | 19.8 |
| Primary role if working while enrolled | | | | | | | |
| Student working to meet expenses..... | 4.5 | 17.9 | 15.6 | 1.5 | 12.3 | 45.0 | 15.0 |
| Employee enrolled in school..... | 4.5 | 26.9 | 24.2 | 3.5 | 23.3 | 19.4 | 8.5 |

SOURCE: National Center for Education Statistics, 1996 National Postsecondary Student Aid Study data analysis system.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-17. Full-time undergraduate enrollment at all institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Full-time undergraduate enrollment: | | | | | | | |
| Total, all races and ethnicities..... | 6,115,948 | 6,464,633 | 7,058,865 | 7,346,260 | 7,369,223 | 7,302,852 | 7,287,543 |
| Non-resident aliens..... | 109,147 | 166,114 | 167,228 | 176,693 | 188,885 | 196,806 | 203,280 |
| White, non-Hispanic..... | 4,959,703 | 5,133,039 | 5,403,802 | 5,510,013 | 5,437,032 | 5,310,930 | 5,216,002 |
| Asian or Pacific Islander..... | 106,424 | 144,691 | 298,070 | 339,467 | 367,609 | 387,105 | 416,090 |
| Underrepresented minorities..... | 940,675 | 1,020,788 | 1,189,765 | 1,320,087 | 1,375,697 | 1,408,011 | 1,452,171 |
| Black, non-Hispanic..... | 627,230 | 650,728 | 670,892 | 733,802 | 753,189 | 763,883 | 776,887 |
| American Indian or Alaskan Native..... | 40,227 | 40,471 | 50,769 | 57,339 | 60,942 | 62,710 | 66,169 |
| Hispanic..... | 273,218 | 329,589 | 468,104 | 528,946 | 561,566 | 581,418 | 609,115 |
| Men, all races and ethnicities..... | 3,280,896 | 3,268,722 | 3,367,828 | 3,484,304 | 3,473,410 | 3,430,498 | 3,388,062 |
| Non-resident aliens..... | 77,669 | 116,471 | 99,043 | 103,606 | 108,439 | 111,328 | 114,224 |
| White, non-Hispanic..... | 2,693,974 | 2,622,125 | 2,609,128 | 2,648,578 | 2,598,252 | 2,531,133 | 2,461,618 |
| Asian or Pacific Islander..... | 58,801 | 77,250 | 155,377 | 174,480 | 187,040 | 195,676 | 208,493 |
| Underrepresented minorities..... | 450,452 | 452,876 | 504,280 | 557,640 | 579,679 | 592,361 | 603,727 |
| Black, non-Hispanic..... | 287,359 | 279,140 | 275,249 | 299,931 | 305,603 | 309,775 | 308,954 |
| American Indian or Alaskan Native..... | 20,799 | 19,176 | 22,494 | 25,081 | 26,785 | 27,690 | 28,791 |
| Hispanic..... | 142,295 | 154,560 | 206,537 | 232,628 | 247,291 | 254,896 | 265,982 |
| Women, all races and ethnicities..... | 2,835,052 | 3,195,911 | 3,691,037 | 3,861,956 | 3,895,813 | 3,872,354 | 3,899,481 |
| Non-resident aliens..... | 31,478 | 49,644 | 68,185 | 73,087 | 80,446 | 85,478 | 89,056 |
| White, non-Hispanic..... | 2,265,729 | 2,510,914 | 2,794,674 | 2,861,435 | 2,838,780 | 2,779,797 | 2,754,384 |
| Asian or Pacific Islander..... | 47,623 | 67,441 | 142,693 | 164,987 | 180,569 | 191,429 | 207,597 |
| Underrepresented minorities..... | 490,222 | 567,912 | 685,485 | 762,447 | 796,018 | 815,650 | 848,444 |
| Black, non-Hispanic..... | 339,872 | 371,588 | 395,643 | 433,871 | 447,586 | 454,108 | 467,933 |
| American Indian or Alaskan Native..... | 19,427 | 21,295 | 28,275 | 32,258 | 34,157 | 35,020 | 37,378 |
| Hispanic..... | 130,923 | 175,029 | 261,567 | 296,318 | 314,275 | 326,522 | 343,133 |
| Percentage distribution: | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.8% | 2.6% | 2.4% | 2.4% | 2.6% | 2.7% | 2.8% |
| White, non-Hispanic..... | 81.1% | 79.4% | 76.6% | 75.0% | 73.8% | 72.7% | 71.6% |
| Asian or Pacific Islander..... | 1.7% | 2.2% | 4.2% | 4.6% | 5.0% | 5.3% | 5.7% |
| Underrepresented minorities..... | 15.4% | 15.8% | 16.9% | 18.0% | 18.7% | 19.3% | 19.9% |
| Black, non-Hispanic..... | 10.3% | 10.1% | 9.5% | 10.0% | 10.2% | 10.5% | 10.7% |
| American Indian or Alaskan Native..... | 0.7% | 0.6% | 0.7% | 0.8% | 0.8% | 0.9% | 0.9% |
| Hispanic..... | 4.5% | 5.1% | 6.6% | 7.2% | 7.6% | 8.0% | 8.4% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 2.4% | 3.6% | 2.9% | 3.0% | 3.1% | 3.2% | 3.4% |
| White, non-Hispanic..... | 82.1% | 80.2% | 77.5% | 76.0% | 74.8% | 73.8% | 72.7% |
| Asian or Pacific Islander..... | 1.8% | 2.4% | 4.6% | 5.0% | 5.4% | 5.7% | 6.2% |
| Underrepresented minorities..... | 13.7% | 13.9% | 15.0% | 16.0% | 16.7% | 17.3% | 17.8% |
| Black, non-Hispanic..... | 8.8% | 8.5% | 8.2% | 8.6% | 8.8% | 9.0% | 9.1% |
| American Indian or Alaskan Native..... | 0.6% | 0.6% | 0.7% | 0.7% | 0.8% | 0.8% | 0.8% |
| Hispanic..... | 4.3% | 4.7% | 6.1% | 6.7% | 7.1% | 7.4% | 7.9% |

See explanatory information and SOURCES at end of table.

**Appendix table 3-17. Full-time undergraduate enrollment at all institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 2 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.1% | 1.6% | 1.8% | 1.9% | 2.1% | 2.2% | 2.3% |
| White, non-Hispanic..... | 79.9% | 78.6% | 75.7% | 74.1% | 72.9% | 71.8% | 70.6% |
| Asian or Pacific Islander..... | 1.7% | 2.1% | 3.9% | 4.3% | 4.6% | 4.9% | 5.3% |
| Underrepresented minorities..... | 17.3% | 17.8% | 18.6% | 19.7% | 20.4% | 21.1% | 21.8% |
| Black, non-Hispanic..... | 12.0% | 11.6% | 10.7% | 11.2% | 11.5% | 11.7% | 12.0% |
| American Indian or Alaskan Native..... | 0.7% | 0.7% | 0.8% | 0.8% | 0.9% | 0.9% | 1.0% |
| Hispanic..... | 4.6% | 5.5% | 7.1% | 7.7% | 8.1% | 8.4% | 8.8% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 3-18. Total enrollment of undergraduate students at 4-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 1 of 2

| Sex and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total, all races and ethnicities..... | 5,817,054 | 6,221,800 | 6,885,028 | 7,022,691 | 7,052,237 | 7,002,998 | 6,995,459 |
| Non-resident aliens..... | 104,095 | 148,390 | 152,506 | 161,540 | 168,104 | 177,544 | 178,817 |
| White, non-Hispanic..... | 4,814,720 | 5,046,806 | 5,369,517 | 5,383,074 | 5,331,003 | 5,221,426 | 5,144,889 |
| Asian or Pacific Islander..... | 94,595 | 127,838 | 275,628 | 306,922 | 327,958 | 344,257 | 367,037 |
| Underrepresented minorities..... | 803,644 | 898,767 | 1,087,377 | 1,171,155 | 1,225,172 | 1,259,771 | 1,304,716 |
| Black, non-Hispanic..... | 539,101 | 568,596 | 623,825 | 665,212 | 693,091 | 706,786 | 718,519 |
| American Indian or Alaskan Native..... | 31,349 | 33,202 | 43,458 | 46,609 | 50,540 | 52,251 | 55,668 |
| Hispanic | 233,194 | 296,969 | 420,094 | 459,334 | 481,541 | 500,734 | 530,529 |
| Men, all races and ethnicities..... | 3,054,310 | 3,067,023 | 3,209,162 | 3,261,228 | 3,263,958 | 3,234,775 | 3,204,347 |
| Non-resident aliens..... | 72,410 | 101,700 | 92,217 | 95,495 | 97,983 | 101,775 | 101,888 |
| White, non-Hispanic..... | 2,556,148 | 2,507,750 | 2,523,052 | 2,522,590 | 2,490,258 | 2,435,891 | 2,381,236 |
| Asian or Pacific Islander..... | 50,781 | 66,937 | 142,013 | 155,857 | 165,281 | 172,410 | 182,057 |
| Underrepresented minorities..... | 374,971 | 390,636 | 451,880 | 487,286 | 510,436 | 524,699 | 539,166 |
| Black, non-Hispanic..... | 241,226 | 238,714 | 249,137 | 265,562 | 277,907 | 282,921 | 282,751 |
| American Indian or Alaskan Native..... | 15,716 | 15,138 | 18,456 | 19,776 | 21,804 | 22,383 | 23,776 |
| Hispanic..... | 118,029 | 136,784 | 184,287 | 201,948 | 210,725 | 219,395 | 232,639 |
| Women, all races and ethnicities..... | 2,762,744 | 3,154,777 | 3,675,866 | 3,761,463 | 3,788,279 | 3,768,223 | 3,791,112 |
| Non-resident aliens..... | 31,685 | 46,691 | 60,289 | 66,045 | 70,121 | 75,769 | 76,929 |
| White, non-Hispanic..... | 2,258,572 | 2,539,055 | 2,846,465 | 2,860,484 | 2,840,745 | 2,785,535 | 2,763,653 |
| Asian or Pacific Islander..... | 43,814 | 60,900 | 133,615 | 151,065 | 162,677 | 171,847 | 184,980 |
| Underrepresented minorities..... | 428,673 | 508,131 | 635,497 | 683,869 | 714,736 | 735,072 | 765,550 |
| Black, non-Hispanic..... | 297,875 | 329,882 | 374,688 | 399,650 | 415,184 | 423,865 | 435,768 |
| American Indian or Alaskan Native..... | 15,633 | 18,064 | 25,002 | 26,833 | 28,736 | 29,868 | 31,892 |
| Hispanic..... | 115,165 | 160,185 | 235,807 | 257,386 | 270,816 | 281,339 | 297,890 |
| Percentage distribution: | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.8% | 2.4% | 2.2% | 2.3% | 2.4% | 2.5% | 2.6% |
| White, non-Hispanic..... | 82.8% | 81.1% | 78.0% | 76.7% | 75.6% | 74.6% | 73.5% |
| Asian or Pacific Islander..... | 1.6% | 2.1% | 4.0% | 4.4% | 4.7% | 4.9% | 5.2% |
| Underrepresented minorities..... | 13.8% | 14.4% | 15.8% | 16.7% | 17.4% | 18.0% | 18.7% |
| Black, non-Hispanic..... | 9.3% | 9.1% | 9.1% | 9.5% | 9.8% | 10.1% | 10.3% |
| American Indian or Alaskan Native..... | 0.5% | 0.5% | 0.7% | 0.7% | 0.7% | 0.8% | 0.8% |
| Hispanic..... | 4.0% | 4.8% | 6.1% | 6.5% | 6.8% | 7.2% | 7.6% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 2.4% | 3.3% | 2.9% | 2.9% | 3.0% | 3.1% | 3.2% |
| White, non-Hispanic..... | 83.7% | 81.8% | 78.6% | 77.4% | 76.3% | 75.3% | 74.3% |
| Asian or Pacific Islander..... | 1.7% | 2.2% | 4.4% | 4.8% | 5.1% | 5.3% | 5.7% |
| Underrepresented minorities..... | 12.3% | 12.7% | 14.1% | 14.9% | 15.6% | 16.2% | 16.8% |
| Black, non-Hispanic..... | 7.9% | 7.8% | 7.8% | 8.1% | 8.5% | 8.7% | 8.8% |
| American Indian or Alaskan Native..... | 0.5% | 0.5% | 0.6% | 0.7% | 0.7% | 0.7% | 0.8% |
| Hispanic..... | 3.9% | 4.5% | 5.7% | 6.2% | 6.5% | 6.8% | 7.3% |

See explanatory information and SOURCES at end of table.

**Appendix table 3-18. Total enrollment of undergraduate students at 4-year institutions, by sex and race/ethnicity:
Fall 1976-1994, selected years**

Page 2 of 2

| Sex and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.1% | 1.5% | 1.6% | 1.8% | 1.9% | 2.0% | 2.0% |
| White, non-Hispanic..... | 81.8% | 80.5% | 77.4% | 76.0% | 75.0% | 73.9% | 72.9% |
| Asian or Pacific Islander..... | 1.6% | 1.9% | 3.6% | 4.0% | 4.3% | 4.6% | 4.9% |
| Underrepresented minorities..... | 15.5% | 16.1% | 17.3% | 18.2% | 18.9% | 19.5% | 20.2% |
| Black, non-Hispanic..... | 10.8% | 10.5% | 10.2% | 10.6% | 11.0% | 11.2% | 11.5% |
| American Indian or Alaskan Native..... | 0.5% | 0.6% | 0.7% | 0.7% | 0.7% | 0.8% | 0.9% |
| Hispanic..... | 4.2% | 5.1% | 6.4% | 6.8% | 7.1% | 7.5% | 7.9% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-19. Full-time enrollment of undergraduate students at 4-year institutions, by sex and race/ethnicity: Fall 1976-1994, selected years

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Full-time undergraduate enrollment: | | | | | | | |
| Total, all races and ethnicities..... | 4,537,069 | 4,791,348 | 5,203,951 | 5,294,761 | 5,316,878 | 5,284,009 | 5,284,387 |
| Non-resident aliens..... | 85,692 | 127,984 | 128,058 | 137,071 | 143,333 | 148,741 | 153,500 |
| White, non-Hispanic..... | 3,756,543 | 3,876,203 | 4,038,333 | 4,030,899 | 3,987,547 | 3,911,740 | 3,860,336 |
| Asian or Pacific Islander..... | 73,517 | 99,013 | 222,293 | 247,344 | 265,362 | 278,996 | 299,211 |
| Underrepresented minorities..... | 621,317 | 688,148 | 815,267 | 879,447 | 920,636 | 944,532 | 971,340 |
| Black, non-Hispanic..... | 419,221 | 437,685 | 469,530 | 500,469 | 520,585 | 529,951 | 537,647 |
| American Indian or Alaskan Native..... | 22,896 | 23,431 | 30,782 | 33,174 | 35,955 | 37,373 | 39,930 |
| Hispanic..... | 179,200 | 227,032 | 314,955 | 345,804 | 364,096 | 377,208 | 393,763 |
| Men, all races and ethnicities..... | 2,420,847 | 2,425,891 | 2,498,502 | 2,531,410 | 2,533,795 | 2,510,810 | 2,486,699 |
| Non-resident aliens..... | 61,750 | 90,111 | 78,567 | 82,234 | 84,692 | 86,911 | 88,700 |
| White, non-Hispanic..... | 2,028,318 | 1,980,989 | 1,958,708 | 1,949,542 | 1,923,254 | 1,881,930 | 1,839,438 |
| Asian or Pacific Islander..... | 39,772 | 52,158 | 114,752 | 126,025 | 134,326 | 140,439 | 148,925 |
| Underrepresented minorities..... | 291,007 | 302,633 | 346,475 | 373,609 | 391,523 | 401,530 | 409,636 |
| Black, non-Hispanic..... | 189,003 | 186,410 | 193,557 | 206,408 | 215,067 | 218,816 | 218,632 |
| American Indian or Alaskan Native..... | 11,816 | 11,183 | 13,694 | 14,606 | 16,060 | 16,726 | 17,771 |
| Hispanic..... | 90,188 | 105,041 | 139,224 | 152,595 | 160,396 | 165,988 | 173,233 |
| Women, all races and ethnicities..... | 2,116,222 | 2,365,457 | 2,705,449 | 2,763,351 | 2,783,083 | 2,773,199 | 2,797,688 |
| Non-resident aliens..... | 23,942 | 37,874 | 49,491 | 54,837 | 58,641 | 61,830 | 64,800 |
| White, non-Hispanic..... | 1,728,225 | 1,895,213 | 2,079,625 | 2,081,357 | 2,064,293 | 2,029,810 | 2,020,898 |
| Asian or Pacific Islander..... | 33,745 | 46,855 | 107,541 | 121,319 | 131,036 | 138,557 | 150,286 |
| Underrepresented minorities..... | 330,310 | 385,515 | 468,792 | 505,838 | 529,113 | 543,002 | 561,704 |
| Black, non-Hispanic..... | 230,218 | 251,275 | 275,973 | 294,061 | 305,518 | 311,135 | 319,015 |
| American Indian or Alaskan Native..... | 11,081 | 12,248 | 17,088 | 18,568 | 19,895 | 20,647 | 22,159 |
| Hispanic..... | 89,012 | 121,991 | 175,731 | 193,209 | 203,700 | 211,220 | 220,530 |
| Percentage distribution: | | | | | | | |
| Total, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.9% | 2.7% | 2.5% | 2.6% | 2.7% | 2.8% | 2.9% |
| White, non-Hispanic..... | 82.8% | 80.9% | 77.6% | 76.1% | 75.0% | 74.0% | 73.1% |
| Asian or Pacific Islander..... | 1.6% | 2.1% | 4.3% | 4.7% | 5.0% | 5.3% | 5.7% |
| Underrepresented minorities..... | 13.7% | 14.4% | 15.7% | 16.6% | 17.3% | 17.9% | 18.4% |
| Black, non-Hispanic..... | 9.2% | 9.1% | 9.0% | 9.5% | 9.8% | 10.0% | 10.2% |
| American Indian or Alaskan Native..... | 0.5% | 0.5% | 0.6% | 0.6% | 0.7% | 0.7% | 0.8% |
| Hispanic..... | 3.9% | 4.7% | 6.1% | 6.5% | 6.8% | 7.1% | 7.5% |
| Men, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 2.6% | 3.7% | 3.1% | 3.2% | 3.3% | 3.5% | 3.6% |
| White, non-Hispanic..... | 83.8% | 81.7% | 78.4% | 77.0% | 75.9% | 75.0% | 74.0% |
| Asian or Pacific Islander..... | 1.6% | 2.2% | 4.6% | 5.0% | 5.3% | 5.6% | 6.0% |
| Underrepresented minorities..... | 12.0% | 12.5% | 13.9% | 14.8% | 15.5% | 16.0% | 16.5% |
| Black, non-Hispanic..... | 7.8% | 7.7% | 7.7% | 8.2% | 8.5% | 8.7% | 8.8% |
| American Indian or Alaskan Native..... | 0.5% | 0.5% | 0.5% | 0.6% | 0.6% | 0.7% | 0.7% |
| Hispanic..... | 3.7% | 4.3% | 5.6% | 6.0% | 6.3% | 6.6% | 7.0% |

See explanatory information and SOURCES at end of table.

Appendix table 3-19. Full-time enrollment of undergraduate students at 4-year institutions, by sex and race/ethnicity: Fall 1976-1994, selected years

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| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Women, all races and ethnicities..... | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens..... | 1.1% | 1.6% | 1.8% | 2.0% | 2.1% | 2.2% | 2.3% |
| White, non-Hispanic..... | 81.7% | 80.1% | 76.9% | 75.3% | 74.2% | 73.2% | 72.2% |
| Asian or Pacific Islander..... | 1.6% | 2.0% | 4.0% | 4.4% | 4.7% | 5.0% | 5.4% |
| Underrepresented minorities..... | 15.6% | 16.3% | 17.3% | 18.3% | 19.0% | 19.6% | 20.1% |
| Black, non-Hispanic..... | 10.9% | 10.6% | 10.2% | 10.6% | 11.0% | 11.2% | 11.4% |
| American Indian or Alaskan Native..... | 0.5% | 0.5% | 0.6% | 0.7% | 0.7% | 0.7% | 0.8% |
| Hispanic..... | 4.2% | 5.2% | 6.5% | 7.0% | 7.3% | 7.6% | 7.9% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-20. Percentage distribution of persons 18-24 years of age in total population, total enrollment of undergraduate students at 4-year institutions, and the index of representation, by race/ethnicity and sex: 1980, 1990-1994¹

Page 1 of 1

| Race/ethnicity and sex | 1980 | | | 1990 | | | 1991 | | |
|-------------------------|-----------------------------------|--------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------|
| | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation |
| White males | 38.92 | 41.29 | 106.10 | 35.72 | 37.48 | 104.90 | 35.49 | 36.77 | 103.59 |
| Asian males | 0.78 | 1.10 | 140.58 | 1.67 | 2.11 | 126.33 | 1.74 | 2.27 | 130.29 |
| Black males | 6.19 | 3.93 | 63.48 | 6.65 | 3.70 | 55.69 | 6.72 | 3.87 | 57.63 |
| Hispanic males | 3.93 | 2.25 | 57.26 | 6.54 | 2.74 | 41.87 | 6.62 | 2.94 | 44.45 |
| American Indian males | 0.34 | 0.25 | 73.56 | 0.41 | 0.27 | 66.26 | 0.42 | 0.29 | 67.90 |
| White females | 38.41 | 41.81 | 108.83 | 34.69 | 42.28 | 121.87 | 34.41 | 41.69 | 121.14 |
| Asian females | 0.77 | 1.00 | 130.11 | 1.57 | 1.98 | 126.18 | 1.66 | 2.20 | 132.63 |
| Black females | 6.67 | 5.43 | 81.47 | 6.90 | 5.57 | 80.72 | 6.94 | 5.82 | 83.89 |
| Hispanic females | 3.65 | 2.64 | 72.18 | 5.46 | 3.50 | 64.19 | 5.58 | 3.75 | 67.19 |
| American Indian females | 0.33 | 0.30 | 90.44 | 0.40 | 0.37 | 94.00 | 0.40 | 0.39 | 97.34 |
| 1992 | | | 1993 | | | 1994 | | | |
| Race/ethnicity and sex | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation | Percent of 18-24 years population | Percent of 4-year college enrollment | Index of representation |
| | 35.21 | 36.17 | 102.74 | 35.03 | 35.69 | 101.88 | 34.80 | 34.93 | 100.38 |
| White males | 35.21 | 36.17 | 102.74 | 35.03 | 35.69 | 101.88 | 34.80 | 34.93 | 100.38 |
| Asian males | 1.84 | 2.40 | 130.30 | 1.92 | 2.53 | 131.44 | 1.98 | 2.67 | 134.66 |
| Black males | 6.79 | 4.04 | 59.47 | 6.83 | 4.15 | 60.69 | 6.91 | 4.15 | 60.04 |
| Hispanic males | 6.68 | 3.06 | 45.82 | 6.70 | 3.21 | 47.94 | 6.75 | 3.41 | 50.59 |
| American Indian males | 0.44 | 0.32 | 72.71 | 0.44 | 0.33 | 74.45 | 0.45 | 0.35 | 77.97 |
| White females | 34.12 | 41.27 | 120.93 | 33.90 | 40.81 | 120.39 | 33.62 | 40.54 | 120.58 |
| Asian females | 1.78 | 2.36 | 132.98 | 1.87 | 2.52 | 134.84 | 1.95 | 2.71 | 139.04 |
| Black females | 7.00 | 6.03 | 86.11 | 7.03 | 6.21 | 88.31 | 7.11 | 6.39 | 89.96 |
| Hispanic females | 5.72 | 3.93 | 68.72 | 5.85 | 4.12 | 70.45 | 6.00 | 4.37 | 72.81 |
| American Indian females | 0.42 | 0.42 | 100.27 | 0.42 | 0.44 | 102.99 | 0.43 | 0.47 | 108.42 |

¹The number of cases for the percent distributions are presented in appendix table 3-21. Nonresident aliens were not included in these calculations. The numbers displayed may not be exact due to rounding error.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-21. Number of persons 18-24 years of age in total population and total 4-year college enrollment, by race/ethnicity and sex: 1980, 1990-1994

Page 1 of 1

| Race/ethnicity and sex | 1980 | | 1990 | | 1991 | |
|-------------------------|---------------------------|---------------------------------|---------------------------|---------------------------------|---------------------------|---------------------------------|
| | 18-24 year old population | Total 4-year college enrollment | 18-24 year old population | Total 4-year college enrollment | 18-24 year old population | Total 4-year college enrollment |
| Total | 30,103,000 | 6,073,409 | 26,831,000 | 6,732,522 | 26,384,000 | 6,861,151 |
| White males | 11,715,000 | 2,507,750 | 9,585,000 | 2,523,052 | 9,364,000 | 2,522,590 |
| Asian males | 236,000 | 66,937 | 448,000 | 142,013 | 460,000 | 155,857 |
| Black males | 1,864,000 | 238,714 | 1,783,000 | 249,137 | 1,772,000 | 265,562 |
| Hispanic males | 1,184,000 | 136,784 | 1,754,000 | 184,287 | 1,747,000 | 201,948 |
| American Indian males | 102,000 | 15,138 | 111,000 | 18,456 | 112,000 | 19,776 |
| White females | 11,564,000 | 2,539,055 | 9,308,000 | 2,846,465 | 9,080,000 | 2,860,484 |
| Asian females | 232,000 | 60,900 | 422,000 | 133,615 | 438,000 | 151,065 |
| Black females | 2,007,000 | 329,882 | 1,850,000 | 374,688 | 1,832,000 | 399,650 |
| Hispanic females | 1,100,000 | 160,185 | 1,464,000 | 235,807 | 1,473,000 | 257,386 |
| American Indian females | 99,000 | 18,064 | 106,000 | 25,002 | 106,000 | 26,833 |
| Race/ethnicity and sex | 1992 | | 1993 | | 1994 | |
| | 18-24 year old population | Total 4-year college enrollment | 18-24 year old population | Total 4-year college enrollment | 18-24 year old population | Total 4-year college enrollment |
| Total | 25,942,000 | 6,884,133 | 25,653,000 | 6,825,454 | 25,260,000 | 6,816,642 |
| White males | 9,134,000 | 2,490,258 | 8,986,000 | 2,435,891 | 8,791,000 | 2,381,236 |
| Asian males | 478,000 | 165,281 | 493,000 | 172,410 | 501,000 | 182,057 |
| Black males | 1,761,000 | 277,907 | 1,752,000 | 282,921 | 1,745,000 | 282,751 |
| Hispanic males | 1,733,000 | 210,725 | 1,720,000 | 219,395 | 1,704,000 | 232,639 |
| American Indian males | 113,000 | 21,804 | 113,000 | 22,383 | 113,000 | 23,776 |
| White females | 8,852,000 | 2,840,745 | 8,696,000 | 2,785,535 | 8,493,000 | 2,763,653 |
| Asian females | 461,000 | 162,677 | 479,000 | 171,847 | 493,000 | 184,980 |
| Black females | 1,817,000 | 415,184 | 1,804,000 | 423,865 | 1,795,000 | 435,768 |
| Hispanic females | 1,485,000 | 270,816 | 1,501,000 | 281,339 | 1,516,000 | 297,890 |
| American Indian females | 108,000 | 28,736 | 109,000 | 29,868 | 109,000 | 31,892 |

NOTE: These data do not include nonresident aliens; and U.S. citizens and permanent residents for whom their race/ethnicity is unknown.

SOURCES: U.S. Department of Education/NCES Opening Fall Enrollment Survey and U.S. Bureau of the Census, Current Population Reports, tabulations by National Science Foundation/SRS.

Appendix table 3-22. Percentage distribution of full-time, first-time, first-year students attending 4-year colleges in 1990, percentage distribution of earned bachelor's degrees in 1994, and the index of representation, by race/ethnicity, sex, and field of degree¹

Page 1 of 2

| Race/ethnicity and sex | Number of full-time, first-time, first-year 1990 4-year college enrollment | Percent of full-time, first-time, first-year 1990 4-year college enrollment | Total degrees | | Engineering | | Physical sciences | |
|-------------------------|--|---|---|-------------------------|---|-------------------------|---|-------------------------|
| | | | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation |
| White males | 385,984 | 36.8 | 37.4 | 101.47 | 66.1 | 179.41 | 57.1 | 154.87 |
| Asian males | 24,904 | 2.4 | 2.4 | 98.88 | 9.1 | 384.79 | 3.7 | 156.20 |
| Black males | 48,485 | 4.6 | 2.7 | 57.87 | 3.1 | 67.35 | 2.7 | 57.45 |
| Hispanic males | 31,614 | 3.0 | 2.3 | 76.24 | 4.4 | 144.46 | 2.4 | 78.80 |
| American Indian males | 3,024 | 0.3 | 0.2 | 78.96 | 0.3 | 108.35 | 0.3 | 103.23 |
| White females | 418,445 | 39.9 | 44.3 | 110.90 | 12.0 | 30.00 | 26.7 | 66.82 |
| Asian females | 24,860 | 2.4 | 2.5 | 105.93 | 2.2 | 94.32 | 2.6 | 108.18 |
| Black females | 67,517 | 6.4 | 4.6 | 72.07 | 1.5 | 23.72 | 2.6 | 40.63 |
| Hispanic females | 39,134 | 3.7 | 3.3 | 87.70 | 1.1 | 30.31 | 1.8 | 48.78 |
| American Indian females | 3,503 | 0.3 | 0.3 | 93.18 | 0.1 | 20.38 | 0.2 | 53.12 |
| Mathematical science | | | Computer science | | Biological science | | Agricultural science | |
| Race/ethnicity and sex | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation |
| White males | 43.5 | 118.05 | 55.5 | 150.53 | 37.7 | 102.43 | 58.1 | 157.70 |
| Asian males | 3.8 | 161.64 | 6.8 | 286.43 | 6.0 | 251.55 | 0.6 | 27.33 |
| Black males | 3.4 | 72.55 | 5.4 | 115.73 | 1.9 | 40.03 | 1.1 | 23.45 |
| Hispanic males | 2.2 | 73.04 | 3.3 | 109.91 | 2.6 | 85.97 | 1.5 | 50.68 |
| American Indian males | 0.2 | 73.81 | 0.3 | 94.29 | 0.2 | 77.55 | 0.5 | 181.17 |
| White females | 38.0 | 95.08 | 17.5 | 43.82 | 38.1 | 95.37 | 34.9 | 87.28 |
| Asian females | 3.0 | 124.77 | 3.6 | 149.88 | 5.9 | 249.89 | 0.7 | 30.38 |
| Black females | 3.9 | 60.99 | 5.7 | 88.54 | 4.1 | 63.67 | 1.0 | 16.11 |
| Hispanic females | 1.8 | 47.79 | 1.9 | 51.37 | 3.2 | 85.76 | 1.1 | 30.33 |
| American Indian females | 0.2 | 65.92 | 0.1 | 26.21 | 0.3 | 80.09 | 0.3 | 101.89 |

See explanatory information and SOURCES at end of table.

Appendix table 3-22. Percentage distribution of full-time, first-time, first-year students attending 4-year colleges in 1990, percentage distribution of earned bachelor's degrees, distribution of earned bachelor's degrees in 1994, and the index of representation, by race/ethnicity, sex, and field of degree¹

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| Race/ethnicity and sex | Social sciences | | Psychology | | Non-science and engineering | |
|-------------------------|---|-------------------------|---|-------------------------|---|-------------------------|
| | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation |
| White males | 43.9 | 119.19 | 22.1 | 60.08 | 34.0 | 92.13 |
| Asian males | 2.4 | 101.33 | 1.2 | 50.46 | 1.5 | 64.14 |
| Black males | 3.5 | 75.44 | 1.8 | 39.57 | 2.6 | 55.52 |
| Hispanic males | 2.8 | 94.03 | 1.5 | 49.06 | 2.1 | 69.13 |
| American Indian males | 0.3 | 102.88 | 0.2 | 58.19 | 0.2 | 71.81 |
| White females | 36.4 | 91.20 | 59.4 | 148.78 | 48.7 | 121.84 |
| Asian females | 2.6 | 111.59 | 2.9 | 123.40 | 2.2 | 94.27 |
| Black females | 4.7 | 72.22 | 6.0 | 92.35 | 4.9 | 75.87 |
| Hispanic females | 3.0 | 79.98 | 4.5 | 119.13 | 3.5 | 94.39 |
| American Indian females | 0.3 | 94.89 | 0.4 | 124.91 | 0.3 | 99.66 |

¹The numbers of cases for the percent distributions of earned bachelor's degrees are presented in text table 3-6.

NOTE: These data do not include nonresident aliens; and U.S. citizens and permanent residents for whom their race/ethnicity is unknown.

SOURCE: U.S. Department of Education/National Center for Education Statistics, Opening Fall Enrollments Survey and Completions Survey, tabulations by National Science Foundation/SRS.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 3-23. Percentage distribution of full-time, first-time, first-year students attending 4-year colleges in 1991, percentage distribution of earned bachelor's degrees in 1995, and the index of representation, by race/ethnicity, sex, and field of degree¹

Page 1 of 2

| Race/ethnicity and sex | Number of full-time first-time first-year 1991 4-year college enrollment | Percent of full-time first-time first-year 1991 4-year college enrollment | Total degrees | | Engineering | | Physical sciences | | |
|-------------------------|--|---|--|-------------------------|---|-------------------------|---|-------------------------|--------|
| | | | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | |
| White males | 371,494 | 35.9 | Percent distribution of earned bachelor's degrees Index of representation | 36.7 | 102.04 | 64.3 | 178.90 | 54.9 | 152.75 |
| Asian males | 25,873 | 2.5 | | 2.6 | 102.01 | 9.3 | 372.89 | 4.3 | 171.85 |
| Black males | 50,317 | 4.9 | | 2.8 | 57.36 | 3.2 | 66.28 | 2.7 | 55.79 |
| Hispanic males | 34,283 | 3.3 | | 2.5 | 75.70 | 5.1 | 152.56 | 2.4 | 72.29 |
| American Indian males | 3,024 | 0.3 | | 0.2 | 82.17 | 0.3 | 105.15 | 0.4 | 123.78 |
| White females | 406,538 | 39.3 | | 43.7 | 111.22 | 12.1 | 30.85 | 27.1 | 69.00 |
| Asian females | 27,228 | 2.6 | | 2.8 | 105.82 | 2.5 | 95.88 | 3.1 | 117.27 |
| Black females | 68,697 | 6.6 | | 4.9 | 73.58 | 1.7 | 26.27 | 3.0 | 44.50 |
| Hispanic females | 42,756 | 4.1 | | 3.5 | 84.52 | 1.3 | 31.95 | 2.0 | 48.15 |
| American Indian females | 3,721 | 0.4 | | 0.3 | 94.71 | 0.1 | 21.85 | 0.2 | 48.77 |
| Mathematical science | | | Computer science | | Biological science | | Agricultural science | | |
| Race/ethnicity and sex | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | |
| White males | 42.3 | 117.74 | Percent distribution of earned bachelor's degrees Index of representation | 54.1 | 150.48 | 36.5 | 101.48 | 57.5 | 160.00 |
| Asian males | 4.0 | 160.81 | | 7.3 | 290.02 | 6.4 | 255.26 | 0.9 | 36.64 |
| Black males | 3.7 | 75.84 | | 5.7 | 116.91 | 1.8 | 37.14 | 0.9 | 17.53 |
| Hispanic males | 2.4 | 73.66 | | 4.0 | 121.12 | 2.5 | 74.46 | 1.6 | 48.49 |
| American Indian males | 0.2 | 76.88 | | 0.3 | 114.43 | 0.2 | 80.63 | 0.6 | 197.72 |
| White females | 37.9 | 96.37 | | 17.1 | 43.60 | 38.4 | 97.64 | 35.0 | 89.10 |
| Asian females | 3.5 | 131.32 | | 3.6 | 136.14 | 6.6 | 250.18 | 1.1 | 42.04 |
| Black females | 4.0 | 60.57 | | 5.8 | 86.73 | 4.1 | 62.39 | 1.0 | 15.07 |
| Hispanic females | 1.7 | 41.44 | | 2.0 | 47.78 | 3.2 | 77.97 | 1.1 | 26.94 |
| American Indian females | 0.2 | 62.48 | | 0.2 | 47.13 | 0.3 | 80.37 | 0.3 | 82.30 |

See explanatory information and SOURCES at end of table.

Appendix table 3-23. Percentage distribution of full-time, first-time, first-year students attending 4-year colleges in 1991, percentage distribution of earned bachelor's degrees in 1995, and the index of representation, by race/ethnicity, sex, and field of degree¹

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| Race/ethnicity and sex | Social sciences | | Psychology | | Non-science and engineering | |
|-------------------------|---|-------------------------|---|-------------------------|---|-------------------------|
| | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation | Percent distribution of earned bachelor's degrees | Index of representation |
| White males | 42.9 | 119.28 | 21.8 | 60.65 | 33.4 | 92.96 |
| Asian males | 2.6 | 102.02 | 1.4 | 55.37 | 1.7 | 66.94 |
| Black males | 3.6 | 73.75 | 2.0 | 41.19 | 2.7 | 55.57 |
| Hispanic males | 3.0 | 89.49 | 1.7 | 50.28 | 2.3 | 69.14 |
| American Indian males | 0.3 | 108.34 | 0.2 | 58.67 | 0.2 | 74.08 |
| White females | 36.2 | 92.08 | 58.2 | 147.91 | 48.0 | 122.04 |
| Asian females | 3.0 | 112.20 | 3.4 | 128.25 | 2.4 | 92.29 |
| Black females | 5.0 | 75.22 | 6.2 | 93.38 | 5.2 | 77.61 |
| Hispanic females | 3.2 | 78.01 | 4.8 | 116.77 | 3.8 | 91.02 |
| American Indian females | 0.3 | 91.76 | 0.4 | 114.03 | 0.4 | 103.47 |

¹The numbers of cases for the percent distributions of earned bachelor's degrees are presented in text table 3-6.

NOTE: These data do not include nonresident aliens; and U.S. citizens and permanent residents for whom their race/ethnicity is unknown.

SOURCE: U.S. Department of Education/National Center for Education Statistics, Opening Fall Enrollments Survey and Completions Survey, tabulations by National Science Foundation/SRS.

Appendix table 3-24. Full-time enrollment of first-time, first-year students at all institutions, by sex and race/ethnicity: Fall 1976-1994, selected years

Page 1 of 2

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total, all races and ethnicities | 1,081,893 | 1,132,943 | 1,068,432 | 1,055,682 | 1,064,886 | 1,077,987 | 1,076,502 |
| Non-resident aliens | 17,504 | 21,319 | 20,962 | 21,751 | 22,289 | 21,925 | 22,002 |
| White, non-Hispanic | 889,861 | 911,879 | 804,429 | 778,032 | 779,514 | 781,057 | 778,784 |
| Asian or Pacific Islander | 15,550 | 21,181 | 49,764 | 53,101 | 54,885 | 57,406 | 61,772 |
| Underrepresented minorities | 158,977 | 178,564 | 193,277 | 202,798 | 208,198 | 217,599 | 213,944 |
| Black, non-Hispanic | 108,591 | 113,244 | 116,002 | 119,014 | 120,226 | 122,474 | 122,249 |
| Hispanic | 45,223 | 59,841 | 70,748 | 77,039 | 80,858 | 87,598 | 83,427 |
| American Indian or Alaskan Native | 5,162 | 5,479 | 6,527 | 6,745 | 7,114 | 7,527 | 8,268 |
| Men, all races and ethnicities | 547,612 | 554,275 | 506,357 | 497,751 | 500,801 | 505,457 | 498,778 |
| Non-resident aliens | 12,015 | 14,021 | 12,346 | 12,760 | 12,814 | 12,389 | 12,506 |
| White, non-Hispanic | 455,667 | 452,321 | 385,984 | 371,494 | 370,379 | 370,980 | 365,219 |
| Asian or Pacific Islander | 8,081 | 10,849 | 24,904 | 25,873 | 26,950 | 28,186 | 29,679 |
| Underrepresented minorities | 71,850 | 77,084 | 83,123 | 87,624 | 90,658 | 93,902 | 91,374 |
| Black, non-Hispanic | 47,683 | 48,093 | 48,485 | 50,317 | 51,189 | 51,789 | 50,895 |
| Hispanic | 21,767 | 26,393 | 31,614 | 34,283 | 36,157 | 38,664 | 36,701 |
| American Indian or Alaskan Native | 2,399 | 2,598 | 3,024 | 3,024 | 3,312 | 3,449 | 3,778 |
| Women, all races and ethnicities | 534,281 | 578,668 | 562,075 | 557,931 | 564,085 | 572,530 | 577,724 |
| Non-resident aliens | 5,490 | 7,298 | 8,616 | 8,991 | 9,475 | 9,536 | 9,496 |
| White, non-Hispanic | 434,194 | 459,558 | 418,445 | 406,538 | 409,135 | 410,077 | 413,565 |
| Asian or Pacific Islander | 7,470 | 10,332 | 24,860 | 27,228 | 27,935 | 29,220 | 32,093 |
| Underrepresented minorities | 87,127 | 101,480 | 110,154 | 115,174 | 117,540 | 123,697 | 122,570 |
| Black, non-Hispanic | 60,908 | 65,150 | 67,517 | 68,697 | 69,037 | 70,685 | 71,354 |
| Hispanic | 23,456 | 33,449 | 39,134 | 42,756 | 44,701 | 48,934 | 46,726 |
| American Indian or Alaskan Native | 2,763 | 2,881 | 3,503 | 3,721 | 3,802 | 4,078 | 4,490 |

Percentage distribution:

| | | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Total, all races and ethnicities | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens | 1.6% | 1.9% | 2.0% | 2.1% | 2.1% | 2.0% | 2.0% |
| White, non-Hispanic | 82.3% | 80.5% | 75.3% | 73.7% | 73.2% | 72.5% | 72.3% |
| Asian or Pacific Islander | 1.4% | 1.9% | 4.7% | 5.0% | 5.2% | 5.3% | 5.7% |
| Underrepresented minorities | 14.7% | 15.8% | 18.1% | 19.2% | 19.6% | 20.2% | 19.9% |
| Black, non-Hispanic | 10.0% | 10.0% | 10.9% | 11.3% | 11.3% | 11.4% | 11.4% |
| Hispanic | 4.2% | 5.3% | 6.6% | 7.3% | 7.6% | 8.1% | 7.7% |
| American Indian or Alaskan Native | 4.8% | 4.8% | 5.6% | 5.7% | 5.9% | 6.1% | 6.8% |

See explanatory information and SOURCES at end of table.

Appendix table 3-24. Full-time enrollment of first-time, first-year students at all institutions, by sex and race/ethnicity: Fall 1976-1994, selected years

| Enrollment status, sex, and race/ethnicity | 1976 | 1980 | 1990 | 1991 | 1992 | 1993 | 1994 | Page 2 of 2 |
|--|--------|--------|--------|--------|--------|--------|--------|-------------|
| Men, all races and ethnicities | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens | 2.2% | 2.5% | 2.4% | 2.6% | 2.6% | 2.5% | 2.5% | 2.5% |
| White, non-Hispanic | 83.2% | 81.6% | 76.2% | 74.6% | 74.0% | 73.4% | 73.2% | 73.2% |
| Asian or Pacific Islander | 1.5% | 2.0% | 4.9% | 5.2% | 5.4% | 5.6% | 6.0% | 6.0% |
| Underrepresented minorities | 13.1% | 13.9% | 16.4% | 17.6% | 18.1% | 18.6% | 18.3% | 18.3% |
| Black, non-Hispanic | 8.7% | 8.7% | 9.6% | 10.1% | 10.2% | 10.2% | 10.2% | 10.2% |
| Hispanic | 4.0% | 4.8% | 6.2% | 6.9% | 7.2% | 7.6% | 7.4% | 7.4% |
| American Indian or Alaskan Native | 5.0% | 5.4% | 6.2% | 6.0% | 6.5% | 6.7% | 7.4% | 7.4% |
| Women, all races and ethnicities | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Non-resident aliens | 1.0% | 1.3% | 1.5% | 1.6% | 1.7% | 1.7% | 1.6% | 1.6% |
| White, non-Hispanic | 81.3% | 79.4% | 74.4% | 72.9% | 72.5% | 71.6% | 71.6% | 71.6% |
| Asian or Pacific Islander | 1.4% | 1.8% | 4.4% | 4.9% | 5.0% | 5.1% | 5.6% | 5.6% |
| Underrepresented minorities | 16.3% | 17.5% | 19.6% | 20.6% | 20.8% | 21.6% | 21.2% | 21.2% |
| Black, non-Hispanic | 11.4% | 11.3% | 12.0% | 12.3% | 12.2% | 12.3% | 12.4% | 12.4% |
| Hispanic | 4.4% | 5.8% | 7.0% | 7.7% | 7.9% | 8.5% | 8.1% | 8.1% |
| American Indian or Alaskan Native | 4.5% | 4.4% | 5.2% | 5.4% | 5.5% | 5.8% | 6.3% | 6.3% |

NOTE: Other/unknown races and ethnicities have been distributed proportionately across groups. Because of rounding, details may not sum to totals.

SOURCES: U.S. Department of Education/NCES. Opening Fall Enrollment Survey; tabulations by National Science Foundation/SRS.

**Appendix table 3-25. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to
blacks, by field: 1987-1994, selected years**

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Total, all black recipients | | | | | | | |
| Total science and engineering..... | 17,230 | 17,385 | 18,230 | 19,987 | 22,431 | 24,421 | 26,289 |
| Engineering..... | 2,315 | 2,067 | 2,072 | 2,229 | 2,362 | 2,577 | 2,659 |
| Sciences..... | 14,915 | 15,318 | 16,158 | 17,758 | 20,069 | 21,844 | 23,630 |
| Natural sciences..... | 6,524 | 6,005 | 5,782 | 5,834 | 6,401 | 6,972 | 7,559 |
| Physical science ¹ | 823 | 697 | 650 | 753 | 816 | 836 | 921 |
| Mathematical science..... | 834 | 792 | 720 | 811 | 904 | 965 | 992 |
| Computer science..... | 2,820 | 2,457 | 2,247 | 1,997 | 2,090 | 2,213 | 2,398 |
| Biological science..... | 1,890 | 1,916 | 1,994 | 2,111 | 2,385 | 2,739 | 2,980 |
| Agricultural science..... | 157 | 143 | 171 | 162 | 206 | 219 | 268 |
| Social sciences..... | 8,391 | 9,313 | 10,376 | 11,924 | 13,668 | 14,872 | 16,071 |
| Social science..... | 5,940 | 6,570 | 7,226 | 8,236 | 9,489 | 10,254 | 10,835 |
| Psychology..... | 2,451 | 2,743 | 3,150 | 3,688 | 4,179 | 4,618 | 5,236 |
| Non-S&E ² | 37,873 | 39,452 | 41,071 | 45,022 | 48,880 | 52,246 | 56,027 |
| Grand total..... | 55,103 | 56,837 | 59,301 | 65,009 | 71,311 | 76,667 | 82,316 |
| Total, all black recipients from HBCUs | | | | | | | |
| Total science and engineering..... | 5,229 | 5,054 | 5,190 | 5,679 | 6,363 | 7,368 | 7,804 |
| Engineering..... | 557 | 474 | 524 | 589 | 594 | 700 | 690 |
| Sciences..... | 4,672 | 4,580 | 4,666 | 5,090 | 5,769 | 6,668 | 7,114 |
| Natural sciences..... | 2,750 | 2,513 | 2,353 | 2,363 | 2,599 | 3,021 | 3,105 |
| Physical science ¹ | 346 | 320 | 296 | 358 | 376 | 390 | 421 |
| Mathematical science..... | 425 | 381 | 307 | 369 | 420 | 463 | 449 |
| Computer science..... | 1,187 | 1,048 | 899 | 748 | 780 | 904 | 904 |
| Biological science..... | 714 | 693 | 764 | 792 | 906 | 1,155 | 1,197 |
| Agricultural science..... | 78 | 71 | 87 | 96 | 117 | 109 | 134 |
| Social sciences..... | 1,922 | 2,067 | 2,313 | 2,727 | 3,170 | 3,647 | 4,009 |
| Social science..... | 1,457 | 1,517 | 1,651 | 1,886 | 2,201 | 2,507 | 2,701 |
| Psychology..... | 465 | 550 | 662 | 841 | 969 | 1,140 | 1,308 |
| Non-S&E ² | 11,360 | 10,871 | 11,155 | 12,284 | 13,346 | 14,481 | 15,622 |
| Grand total..... | 16,589 | 15,925 | 16,345 | 17,963 | 19,709 | 21,849 | 23,426 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-25. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to
blacks, by field: 1987-1994, selected years**

Page 2 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|-------------------------------------|------|------|------|------|------|------|------|
| Percentage from HBCUs | | | | | | | |
| Total science and engineering..... | 30.3 | 29.1 | 28.5 | 28.4 | 28.4 | 30.2 | 29.7 |
| Engineering..... | 24.1 | 22.9 | 25.3 | 26.4 | 25.1 | 27.2 | 25.9 |
| Sciences..... | 31.3 | 29.9 | 28.9 | 28.7 | 28.7 | 30.5 | 30.1 |
| Natural sciences..... | 42.2 | 41.8 | 40.7 | 40.5 | 40.6 | 43.3 | 41.1 |
| Physical science ¹ | 42.0 | 45.9 | 45.5 | 47.5 | 46.1 | 46.7 | 45.7 |
| Mathematical science..... | 51.0 | 48.1 | 42.6 | 45.5 | 46.5 | 48.0 | 45.3 |
| Computer science..... | 42.1 | 42.7 | 40.0 | 37.5 | 37.3 | 40.8 | 37.7 |
| Biological science..... | 37.8 | 36.2 | 38.3 | 37.5 | 38.0 | 42.2 | 40.2 |
| Agricultural science..... | 49.7 | 49.7 | 50.9 | 59.3 | 56.8 | 49.8 | 50.0 |
| Social sciences..... | 22.9 | 22.2 | 22.3 | 22.9 | 23.2 | 24.5 | 24.9 |
| Social science..... | 24.5 | 23.1 | 22.8 | 22.9 | 23.2 | 24.4 | 24.9 |
| Psychology..... | 19.0 | 20.1 | 21.0 | 22.8 | 23.2 | 24.7 | 25.0 |
| Non-S&E ² | 30.0 | 27.6 | 27.2 | 27.3 | 27.3 | 27.7 | 27.9 |
| Grand total..... | 30.1 | 28.0 | 27.6 | 27.6 | 27.6 | 28.5 | 28.5 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

**Appendix table 3-26. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to black
men, by field: 1987-1994, selected years**

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Total, all recipients | | | | | | | |
| Total science and engineering..... | 7,886 | 7,685 | 7,830 | 8,448 | 9,375 | 10,099 | 10,806 |
| Engineering..... | 1,606 | 1,397 | 1,416 | 1,484 | 1,614 | 1,764 | 1,784 |
| Sciences..... | 6,280 | 6,288 | 6,414 | 6,964 | 7,761 | 8,335 | 9,022 |
| Natural sciences..... | 2,939 | 2,732 | 2,476 | 2,538 | 2,709 | 2,872 | 3,146 |
| Physical science ¹ | 433 | 365 | 292 | 391 | 381 | 370 | 464 |
| Mathematical science..... | 399 | 374 | 342 | 380 | 374 | 444 | 457 |
| Computer science..... | 1,284 | 1,205 | 1,074 | 971 | 1,092 | 1,049 | 1,161 |
| Biological science..... | 723 | 700 | 658 | 696 | 749 | 883 | 927 |
| Agricultural science..... | 100 | 88 | 110 | 100 | 113 | 126 | 137 |
| Social sciences..... | 3,341 | 3,556 | 3,938 | 4,426 | 5,052 | 5,463 | 5,876 |
| Social science..... | 2,680 | 2,911 | 3,144 | 3,547 | 4,070 | 4,364 | 4,644 |
| Psychology..... | 661 | 645 | 794 | 879 | 982 | 1,099 | 1,232 |
| Non-S&E ² | 14,056 | 14,228 | 14,760 | 15,790 | 17,143 | 18,275 | 19,300 |
| Grand total..... | 21,942 | 21,913 | 22,590 | 24,238 | 26,518 | 28,374 | 30,106 |
| Total, all black recipients from HBCUs | | | | | | | |
| Total science and engineering..... | 2,337 | 2,112 | 2,086 | 2,211 | 2,450 | 2,761 | 2,940 |
| Engineering..... | 371 | 308 | 331 | 359 | 380 | 430 | 425 |
| Sciences..... | 1,966 | 1,804 | 1,755 | 1,852 | 2,070 | 2,331 | 2,515 |
| Natural sciences..... | 1,193 | 1,056 | 935 | 951 | 972 | 1,089 | 1,162 |
| Physical science ¹ | 156 | 160 | 127 | 163 | 145 | 150 | 197 |
| Mathematical science..... | 213 | 179 | 134 | 164 | 150 | 196 | 181 |
| Computer science..... | 502 | 460 | 377 | 333 | 364 | 361 | 381 |
| Biological science..... | 264 | 206 | 231 | 231 | 238 | 317 | 334 |
| Agricultural science..... | 58 | 51 | 66 | 60 | 75 | 65 | 69 |
| Social sciences..... | 773 | 748 | 820 | 901 | 1,098 | 1,242 | 1,353 |
| Social science..... | 661 | 621 | 657 | 720 | 868 | 989 | 1,060 |
| Psychology..... | 112 | 127 | 163 | 181 | 230 | 253 | 293 |
| Non-S&E ² | 4,239 | 3,870 | 3,980 | 4,219 | 4,637 | 5,106 | 5,517 |
| Grand total..... | 6,576 | 5,982 | 6,066 | 6,430 | 7,087 | 7,867 | 8,457 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-26. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to black
men, by field: 1987-1994, selected years**

Page 2 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|-------------------------------------|------|------|------|------|------|------|------|
| Percentage from HBCUs | | | | | | | |
| Total science and engineering..... | 29.6 | 27.5 | 26.6 | 26.2 | 26.1 | 27.3 | 27.2 |
| Engineering..... | 23.1 | 22.0 | 23.4 | 24.2 | 23.5 | 24.4 | 23.8 |
| Sciences..... | 31.3 | 28.7 | 27.4 | 26.6 | 26.7 | 28.0 | 27.9 |
| Natural sciences..... | 40.6 | 38.7 | 37.8 | 37.5 | 35.9 | 37.9 | 36.9 |
| Physical science ¹ | 36.0 | 43.8 | 43.5 | 41.7 | 38.1 | 40.5 | 42.5 |
| Mathematical science..... | 53.4 | 47.9 | 39.2 | 43.2 | 40.1 | 44.1 | 39.6 |
| Computer science..... | 39.1 | 38.2 | 35.1 | 34.3 | 33.3 | 34.4 | 32.8 |
| Biological science..... | 36.5 | 29.4 | 35.1 | 33.2 | 31.8 | 35.9 | 36.0 |
| Agricultural science..... | 58.0 | 58.0 | 60.0 | 60.0 | 66.4 | 51.6 | 50.4 |
| Social sciences..... | 23.1 | 21.0 | 20.8 | 20.4 | 21.7 | 22.7 | 23.0 |
| Social science..... | 24.7 | 21.3 | 20.9 | 20.3 | 21.3 | 22.7 | 22.8 |
| Psychology..... | 16.9 | 19.7 | 20.5 | 20.6 | 23.4 | 23.0 | 23.8 |
| Non-S&E ² | 30.2 | 27.2 | 27.0 | 26.7 | 27.0 | 27.9 | 28.6 |
| Grand total..... | 30.0 | 27.3 | 26.9 | 26.5 | 26.7 | 27.7 | 28.1 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

**Appendix table 3-27. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to black
women, by field: 1987-1994, selected years**

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Total, all black recipients | | | | | | | |
| Total science and engineering..... | 9,344 | 9,700 | 10,400 | 11,539 | 13,056 | 14,322 | 15,483 |
| Engineering..... | 709 | 670 | 656 | 745 | 748 | 813 | 875 |
| Sciences..... | 8,635 | 9,030 | 9,744 | 10,794 | 12,308 | 13,509 | 14,608 |
| Natural sciences..... | 3,585 | 3,273 | 3,306 | 3,296 | 3,692 | 4,100 | 4,413 |
| Physical science ¹ | 390 | 332 | 358 | 362 | 435 | 466 | 457 |
| Mathematical science..... | 435 | 418 | 378 | 431 | 530 | 521 | 535 |
| Computer science..... | 1,536 | 1,252 | 1,173 | 1,026 | 998 | 1,164 | 1,237 |
| Biological science..... | 1,167 | 1,216 | 1,336 | 1,415 | 1,636 | 1,856 | 2,053 |
| Agricultural science..... | 57 | 55 | 61 | 62 | 93 | 93 | 131 |
| Social sciences..... | 5,050 | 5,757 | 6,438 | 7,498 | 8,616 | 9,409 | 10,195 |
| Social science..... | 3,260 | 3,659 | 4,082 | 4,689 | 5,419 | 5,890 | 6,191 |
| Psychology..... | 1,790 | 2,098 | 2,356 | 2,809 | 3,197 | 3,519 | 4,004 |
| Non-S&E ² | 23,817 | 25,224 | 26,311 | 29,232 | 31,737 | 33,971 | 36,727 |
| Grand total..... | 33,161 | 34,924 | 36,711 | 40,771 | 44,793 | 48,293 | 52,210 |
| Total, all black recipients from HBCUs | | | | | | | |
| Total science and engineering..... | 2,892 | 2,942 | 3,104 | 3,468 | 3,913 | 4,607 | 4,864 |
| Engineering..... | 186 | 166 | 193 | 230 | 214 | 270 | 265 |
| Sciences..... | 2,706 | 2,776 | 2,911 | 3,238 | 3,699 | 4,337 | 4,599 |
| Natural sciences..... | 1,557 | 1,457 | 1,418 | 1,412 | 1,627 | 1,932 | 1,943 |
| Physical science ¹ | 190 | 160 | 169 | 195 | 231 | 240 | 224 |
| Mathematical science..... | 212 | 202 | 173 | 205 | 270 | 267 | 268 |
| Computer science..... | 685 | 588 | 522 | 415 | 416 | 543 | 523 |
| Biological science..... | 450 | 487 | 533 | 561 | 668 | 838 | 863 |
| Agricultural science..... | 20 | 20 | 21 | 36 | 42 | 44 | 65 |
| Social sciences..... | 1,149 | 1,319 | 1,493 | 1,826 | 2,072 | 2,405 | 2,656 |
| Social science..... | 796 | 896 | 994 | 1,166 | 1,333 | 1,518 | 1,641 |
| Psychology..... | 353 | 423 | 499 | 660 | 739 | 887 | 1,015 |
| Non-S&E ² | 7,121 | 7,001 | 7,175 | 8,065 | 8,709 | 9,375 | 10,105 |
| Grand total..... | 10,013 | 9,943 | 10,279 | 11,533 | 12,622 | 13,982 | 14,969 |

See explanatory information and SOURCES at end of table.

**Appendix table 3-27. Earned bachelor's degrees conferred by all schools
and by historically black colleges and universities (HBCUs) to black
women, by field: 1987-1994, selected years**

Page 2 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|-------------------------------------|------|------|------|------|------|------|------|
| Percentage from HBCUs | | | | | | | |
| Total science and engineering..... | 31.0 | 30.3 | 29.8 | 30.1 | 30.0 | 32.2 | 31.4 |
| Engineering..... | 26.2 | 24.8 | 29.4 | 30.9 | 28.6 | 33.2 | 30.3 |
| Sciences..... | 31.3 | 30.7 | 29.9 | 30.0 | 30.1 | 32.1 | 31.5 |
| Natural sciences..... | 43.4 | 44.5 | 42.9 | 42.8 | 44.1 | 47.1 | 44.0 |
| Physical science ¹ | 48.7 | 48.2 | 47.2 | 53.9 | 53.1 | 51.5 | 49.0 |
| Mathematical science..... | 48.7 | 48.3 | 45.8 | 47.6 | 50.9 | 51.2 | 50.1 |
| Computer science..... | 44.6 | 47.0 | 44.5 | 40.4 | 41.7 | 46.6 | 42.3 |
| Biological science..... | 38.6 | 40.0 | 39.9 | 39.6 | 40.8 | 45.2 | 42.0 |
| Agricultural science..... | 35.1 | 36.4 | 34.4 | 58.1 | 45.2 | 47.3 | 49.6 |
| Social sciences..... | 22.8 | 22.9 | 23.2 | 24.4 | 24.0 | 25.6 | 26.1 |
| Social science..... | 24.4 | 24.5 | 24.4 | 24.9 | 24.6 | 25.8 | 26.5 |
| Psychology..... | 19.7 | 20.2 | 21.2 | 23.5 | 23.1 | 25.2 | 25.3 |
| Non-S&E ² | 29.9 | 27.8 | 27.3 | 27.6 | 27.4 | 27.6 | 27.5 |
| Grand total..... | 30.2 | 28.5 | 28.0 | 28.3 | 28.2 | 29.0 | 28.7 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

Appendix table 3-28. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanics, by field: 1987-1994, selected years

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|--------|--------|--------|--------|--------|--------|--------|
| Total, all Hispanic recipients | | | | | | | |
| Total science and engineering..... | 12,419 | 13,327 | 13,918 | 15,351 | 17,391 | 18,442 | 20,529 |
| Engineering..... | 2,554 | 2,561 | 2,511 | 2,566 | 2,733 | 2,961 | 3,143 |
| Sciences..... | 9,865 | 10,766 | 11,407 | 12,785 | 14,658 | 15,481 | 17,386 |
| Natural sciences..... | 4,660 | 4,417 | 4,357 | 4,705 | 4,892 | 5,034 | 5,648 |
| Physical science ¹ | 585 | 563 | 522 | 533 | 546 | 599 | 733 |
| Mathematical science..... | 321 | 373 | 413 | 480 | 482 | 470 | 543 |
| Computer science..... | 1,375 | 1,195 | 1,085 | 1,215 | 1,173 | 1,096 | 1,135 |
| Biological science..... | 2,146 | 2,090 | 2,119 | 2,264 | 2,477 | 2,652 | 2,901 |
| Agricultural science..... | 233 | 196 | 218 | 213 | 214 | 217 | 336 |
| Social sciences..... | 5,205 | 6,349 | 7,050 | 8,080 | 9,766 | 10,447 | 11,738 |
| Social science..... | 3,503 | 4,197 | 4,645 | 5,334 | 6,519 | 6,860 | 7,748 |
| Psychology..... | 1,702 | 2,152 | 2,405 | 2,746 | 3,247 | 3,587 | 3,990 |
| Non-S&E ² | 25,777 | 28,034 | 29,946 | 33,676 | 35,616 | 39,403 | 42,154 |
| Grand total..... | 38,196 | 41,361 | 43,864 | 49,027 | 53,007 | 57,845 | 62,683 |
| Total, all Hispanic recipients from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 3,065 | 3,056 | 2,983 | 2,952 | 3,007 | 3,001 | 3,205 |
| Engineering..... | 584 | 651 | 626 | 554 | 686 | 697 | 742 |
| Sciences..... | 2,481 | 2,405 | 2,357 | 2,398 | 2,321 | 2,304 | 2,463 |
| Natural sciences..... | 1,556 | 1,479 | 1,447 | 1,446 | 1,339 | 1,300 | 1,374 |
| Physical science ¹ | 173 | 184 | 184 | 154 | 172 | 172 | 227 |
| Mathematical science..... | 58 | 69 | 69 | 108 | 34 | 41 | 27 |
| Computer science..... | 337 | 326 | 261 | 327 | 296 | 254 | 258 |
| Biological science..... | 916 | 858 | 862 | 797 | 837 | 833 | 808 |
| Agricultural science..... | 72 | 42 | 71 | 60 | 0 | 0 | 54 |
| Social sciences..... | 925 | 926 | 910 | 952 | 982 | 1,004 | 1,089 |
| Social science..... | 576 | 501 | 495 | 523 | 496 | 508 | 590 |
| Psychology..... | 349 | 425 | 415 | 429 | 486 | 496 | 499 |
| Non-S&E ² | 8,871 | 9,146 | 9,192 | 9,558 | 9,748 | 10,358 | 10,249 |
| Grand total..... | 11,936 | 12,202 | 12,175 | 12,510 | 12,755 | 13,359 | 13,454 |

See explanatory information and SOURCES at end of table.

Appendix table 3-28. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanics, by field: 1987-1994, selected years

Page 2 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|------|------|------|------|------|------|------|
| Percentage from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 24.7 | 22.9 | 21.4 | 19.2 | 17.3 | 16.3 | 15.6 |
| Engineering..... | 22.9 | 25.4 | 24.9 | 21.6 | 25.1 | 23.5 | 23.6 |
| Sciences..... | 25.1 | 22.3 | 20.7 | 18.8 | 15.8 | 14.9 | 14.2 |
| Natural sciences..... | 33.4 | 33.5 | 33.2 | 30.7 | 27.4 | 25.8 | 24.3 |
| Physical science ¹ | 29.6 | 32.7 | 35.2 | 28.9 | 31.5 | 28.7 | 31.0 |
| Mathematical science..... | 18.1 | 18.5 | 16.7 | 22.5 | 7.1 | 8.7 | 5.0 |
| Computer science..... | 24.5 | 27.3 | 24.1 | 26.9 | 25.2 | 23.2 | 22.7 |
| Biological science..... | 42.7 | 41.1 | 40.7 | 35.2 | 33.8 | 31.4 | 27.9 |
| Agricultural science..... | 30.9 | 21.4 | 32.6 | 28.2 | 0.0 | 0.0 | 16.1 |
| Social sciences..... | 17.8 | 14.6 | 12.9 | 11.8 | 10.1 | 9.6 | 9.3 |
| Social science..... | 16.4 | 11.9 | 10.7 | 9.8 | 7.6 | 7.4 | 7.6 |
| Psychology..... | 20.5 | 19.7 | 17.3 | 15.6 | 15.0 | 13.8 | 12.5 |
| Non-S&E ² | 34.4 | 32.6 | 30.7 | 28.4 | 27.4 | 26.3 | 24.3 |
| Grand total..... | 31.2 | 29.5 | 27.8 | 25.5 | 24.1 | 23.1 | 21.5 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

Appendix table 3-29. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanic men, by field: 1987-1994, selected years

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Total, all Hispanic recipients | | | | | | | |
| Total science and engineering..... | 6,974 | 7,318 | 7,434 | 7,888 | 8,730 | 9,160 | 10,190 |
| Engineering..... | 2,100 | 2,100 | 2,035 | 2,039 | 2,187 | 2,355 | 2,495 |
| Sciences..... | 4,874 | 5,218 | 5,399 | 5,849 | 6,543 | 6,805 | 7,695 |
| Natural sciences..... | 2,516 | 2,432 | 2,328 | 2,458 | 2,497 | 2,608 | 2,925 |
| Physical science ¹ | 377 | 362 | 311 | 318 | 326 | 361 | 415 |
| Mathematical science..... | 196 | 224 | 249 | 259 | 279 | 273 | 300 |
| Computer science..... | 766 | 750 | 669 | 738 | 724 | 700 | 719 |
| Biological science..... | 1,018 | 965 | 955 | 1,019 | 1,043 | 1,144 | 1,298 |
| Agricultural science..... | 159 | 131 | 144 | 124 | 125 | 130 | 193 |
| Social sciences..... | 2,358 | 2,786 | 3,071 | 3,391 | 4,046 | 4,197 | 4,770 |
| Social science..... | 1,845 | 2,153 | 2,384 | 2,634 | 3,220 | 3,269 | 3,774 |
| Psychology..... | 513 | 633 | 687 | 757 | 826 | 928 | 996 |
| Non-S&E ² | 9,664 | 10,684 | 11,249 | 12,893 | 13,296 | 14,665 | 15,670 |
| Grand total..... | 16,638 | 18,002 | 18,683 | 20,781 | 22,026 | 23,825 | 25,860 |
| Hispanic recipients from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 1,524 | 1,559 | 1,462 | 1,365 | 1,362 | 1,339 | 1,426 |
| Engineering..... | 453 | 525 | 481 | 398 | 498 | 511 | 534 |
| Sciences..... | 1,071 | 1,034 | 981 | 967 | 864 | 828 | 892 |
| Natural sciences..... | 730 | 671 | 626 | 612 | 520 | 496 | 540 |
| Physical science ¹ | 98 | 91 | 90 | 70 | 78 | 70 | 86 |
| Mathematical science..... | 30 | 39 | 47 | 50 | 20 | 24 | 15 |
| Computer science..... | 172 | 197 | 143 | 170 | 159 | 147 | 149 |
| Biological science..... | 377 | 322 | 302 | 293 | 263 | 255 | 258 |
| Agricultural science..... | 53 | 22 | 44 | 29 | 0 | 0 | 32 |
| Social sciences..... | 341 | 363 | 355 | 355 | 344 | 332 | 352 |
| Social science..... | 272 | 257 | 252 | 245 | 243 | 211 | 248 |
| Psychology..... | 69 | 106 | 103 | 110 | 101 | 121 | 104 |
| Non-S&E ² | 2,578 | 2,814 | 2,804 | 3,204 | 2,890 | 3,030 | 3,087 |
| Grand total..... | 4,102 | 4,373 | 4,266 | 4,569 | 4,252 | 4,369 | 4,513 |

See explanatory information and SOURCES at end of table.

Appendix table 3-29. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanic men, by field: 1987-1994, selected years

Page 2 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|------|------|------|------|------|------|------|
| Percentage from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 21.9 | 21.3 | 19.7 | 17.3 | 15.6 | 14.6 | 14.0 |
| Engineering..... | 21.6 | 25.0 | 23.6 | 19.5 | 22.8 | 21.7 | 21.4 |
| Sciences..... | 22.0 | 19.8 | 18.2 | 16.5 | 13.2 | 12.2 | 11.6 |
| Natural sciences..... | 29.0 | 27.6 | 26.9 | 24.9 | 20.8 | 19.0 | 18.5 |
| Physical science ¹ | 26.0 | 25.1 | 28.9 | 22.0 | 23.9 | 19.4 | 20.7 |
| Mathematical science..... | 15.3 | 17.4 | 18.9 | 19.3 | 7.2 | 8.8 | 5.0 |
| Computer science..... | 22.5 | 26.3 | 21.4 | 23.0 | 22.0 | 21.0 | 20.7 |
| Biological science..... | 37.0 | 33.4 | 31.6 | 28.8 | 25.2 | 22.3 | 19.9 |
| Agricultural science..... | 33.3 | 16.8 | 30.6 | 23.4 | 0.0 | 0.0 | 16.6 |
| Social sciences..... | 14.5 | 13.0 | 11.6 | 10.5 | 8.5 | 7.9 | 7.4 |
| Social science..... | 14.7 | 11.9 | 10.6 | 9.3 | 7.5 | 6.5 | 6.6 |
| Psychology..... | 13.5 | 16.7 | 15.0 | 14.5 | 12.2 | 13.0 | 10.4 |
| Non-S&E ² | 26.7 | 26.3 | 24.9 | 24.9 | 21.7 | 20.7 | 19.7 |
| Grand total..... | 24.7 | 24.3 | 22.8 | 22.0 | 19.3 | 18.3 | 17.5 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

Appendix table 3-30. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanic women, by field: 1987-1994, selected years

Page 1 of 2

| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|--|--------|--------|--------|--------|--------|--------|--------|
| Total, all Hispanic recipients | | | | | | | |
| Total science and engineering..... | 5,445 | 6,009 | 6,484 | 7,463 | 8,661 | 9,282 | 10,339 |
| Engineering..... | 454 | 461 | 476 | 527 | 546 | 606 | 648 |
| Sciences..... | 4,991 | 5,548 | 6,008 | 6,936 | 8,115 | 8,676 | 9,691 |
| Natural sciences..... | 2,144 | 1,985 | 2,029 | 2,247 | 2,395 | 2,426 | 2,723 |
| Physical science ¹ | 208 | 201 | 211 | 215 | 220 | 238 | 318 |
| Mathematical science..... | 125 | 149 | 164 | 221 | 203 | 197 | 243 |
| Computer science..... | 609 | 445 | 416 | 477 | 449 | 396 | 416 |
| Biological science..... | 1,128 | 1,125 | 1,164 | 1,245 | 1,434 | 1,508 | 1,603 |
| Agricultural science..... | 74 | 65 | 74 | 89 | 89 | 87 | 143 |
| Social sciences..... | 2,847 | 3,563 | 3,979 | 4,689 | 5,720 | 6,250 | 6,968 |
| Social science..... | 1,658 | 2,044 | 2,261 | 2,700 | 3,299 | 3,591 | 3,974 |
| Psychology..... | 1,189 | 1,519 | 1,718 | 1,989 | 2,421 | 2,659 | 2,994 |
| Non-S&E ² | 16,113 | 17,350 | 18,697 | 20,783 | 22,320 | 24,738 | 26,484 |
| Grand total..... | 21,558 | 23,359 | 25,181 | 28,246 | 30,981 | 34,020 | 36,823 |
| Hispanic recipients from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 1,541 | 1,497 | 1,521 | 1,587 | 1,645 | 1,662 | 1,779 |
| Engineering..... | 131 | 126 | 145 | 156 | 188 | 186 | 208 |
| Sciences..... | 1,410 | 1,371 | 1,376 | 1,431 | 1,457 | 1,476 | 1,571 |
| Natural sciences..... | 826 | 808 | 821 | 834 | 819 | 804 | 834 |
| Physical science ¹ | 75 | 93 | 94 | 84 | 94 | 102 | 141 |
| Mathematical science..... | 28 | 30 | 22 | 58 | 14 | 17 | 12 |
| Computer science..... | 165 | 129 | 118 | 157 | 137 | 107 | 109 |
| Biological science..... | 539 | 536 | 560 | 504 | 574 | 578 | 550 |
| Agricultural science..... | 19 | 20 | 27 | 31 | 0 | 0 | 22 |
| Social sciences..... | 584 | 563 | 555 | 597 | 638 | 672 | 737 |
| Social science..... | 304 | 244 | 243 | 278 | 253 | 297 | 342 |
| Psychology..... | 280 | 319 | 312 | 319 | 385 | 375 | 395 |
| Non-S&E ² | 6,293 | 6,332 | 6,388 | 6,354 | 6,858 | 7,328 | 7,162 |
| Grand total..... | 7,834 | 7,829 | 7,909 | 7,941 | 8,503 | 8,990 | 8,941 |

See explanatory information and SOURCES at end of table.

Appendix table 3-30. Earned bachelor's degrees conferred by all schools and by institutions in Puerto Rico to Hispanic women, by field: 1987-1994, selected years

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| Field | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|------|------|------|------|------|------|------|
| Percentage from institutions in Puerto Rico | | | | | | | |
| Total science and engineering..... | 28.3 | 24.9 | 23.5 | 21.3 | 19.0 | 17.9 | 17.2 |
| Engineering..... | 28.9 | 27.3 | 30.5 | 29.6 | 34.4 | 30.7 | 32.1 |
| Sciences..... | 28.3 | 24.7 | 22.9 | 20.6 | 18.0 | 17.0 | 16.2 |
| Natural sciences..... | 38.5 | 40.7 | 40.5 | 37.1 | 34.2 | 33.1 | 30.6 |
| Physical science ¹ | 36.1 | 46.3 | 44.5 | 39.1 | 42.7 | 42.9 | 44.3 |
| Mathematical science..... | 22.4 | 20.1 | 13.4 | 26.2 | 6.9 | 8.6 | 4.9 |
| Computer science..... | 27.1 | 29.0 | 28.4 | 32.9 | 30.5 | 27.0 | 26.2 |
| Biological science..... | 47.8 | 47.6 | 48.1 | 40.5 | 40.0 | 38.3 | 34.3 |
| Agricultural science..... | 25.7 | 30.8 | 36.5 | 34.8 | 0.0 | 0.0 | 15.4 |
| Social sciences..... | 20.5 | 15.8 | 13.9 | 12.7 | 11.2 | 10.8 | 10.6 |
| Social science..... | 18.3 | 11.9 | 10.7 | 10.3 | 7.7 | 8.3 | 8.6 |
| Psychology..... | 23.5 | 21.0 | 18.2 | 16.0 | 15.9 | 14.1 | 13.2 |
| Non-S&E ² | 39.1 | 36.5 | 34.2 | 30.6 | 30.7 | 29.6 | 27.0 |
| Grand total..... | 36.3 | 33.5 | 31.4 | 28.1 | 27.4 | 26.4 | 24.3 |

¹ In this table, "Physical science" includes earth, atmospheric, and ocean sciences, as well as physics, astronomy, and chemistry.

² Non-S&E refers to non-science and non-engineering.

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories are as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCE: Tabulations by National Science Foundation/SRS; data from National Center for Education Statistics IPEDS Completions Surveys, 1987-1994.

Appendix table 4-1. Graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change 1985-1995 | Percent change 1993-1995 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------------------|-----------------------------|
| Total science and engineering..... | 358,126 | 368,119 | 373,355 | 375,287 | 382,769 | 397,159 | 412,708 | 430,797 | 436,233 | 431,758 | 423,922 | 18.37 | -2.82 |
| Total sciences | 262,135 | 266,245 | 269,402 | 272,458 | 278,726 | 289,534 | 299,132 | 312,762 | 319,352 | 318,698 | 316,393 | 20.70 | -0.93 |
| Physical sciences..... | 30,981 | 32,246 | 32,727 | 32,962 | 33,616 | 34,075 | 34,710 | 35,348 | 35,318 | 34,449 | 33,470 | 8.03 | -5.23 |
| Astronomy..... | 671 | 689 | 719 | 731 | 789 | 810 | 829 | 869 | 880 | 973 | 912 | 35.92 | 3.64 |
| Chemistry..... | 18,305 | 18,744 | 18,827 | 18,579 | 18,828 | 19,118 | 19,407 | 19,929 | 20,131 | 19,797 | 19,645 | 7.32 | -2.41 |
| Physics..... | 11,672 | 12,437 | 12,807 | 13,308 | 13,657 | 13,813 | 14,081 | 14,122 | 13,841 | 13,162 | 12,427 | 6.47 | -10.22 |
| Other physical sciences..... | 333 | 376 | 374 | 344 | 342 | 334 | 393 | 428 | 466 | 517 | 486 | 45.95 | 4.29 |
| Earth, atmospheric, and ocean sciences..... | 15,420 | 15,066 | 14,371 | 13,867 | 13,643 | 13,984 | 14,480 | 15,347 | 15,805 | 16,042 | 15,802 | 2.48 | -0.02 |
| Atmospheric sciences..... | 964 | 961 | 952 | 940 | 912 | 929 | 968 | 1,089 | 1,112 | 1,109 | 1,072 | 11.20 | -3.60 |
| Earth sciences..... | 10,294 | 9,819 | 8,998 | 8,463 | 8,052 | 7,692 | 7,567 | 7,744 | 7,785 | 7,741 | 7,602 | -26.15 | -2.35 |
| Oceanography..... | 2,081 | 2,128 | 2,127 | 2,033 | 2,207 | 2,333 | 2,386 | 2,530 | 2,611 | 2,853 | 2,703 | 29.89 | 3.52 |
| Other geosciences..... | 2,081 | 2,158 | 2,294 | 2,431 | 2,472 | 3,030 | 3,559 | 3,984 | 4,297 | 4,339 | 4,425 | 112.64 | 2.98 |
| Mathematics and statistics..... | 17,563 | 17,949 | 18,508 | 19,077 | 19,247 | 19,774 | 19,952 | 20,355 | 20,000 | 19,579 | 18,509 | 5.39 | -7.46 |
| Computer science..... | 29,769 | 31,349 | 32,051 | 32,227 | 32,482 | 34,257 | 34,610 | 36,320 | 36,298 | 34,278 | 33,509 | 12.56 | -7.68 |
| Agricultural sciences..... | 11,561 | 11,458 | 11,118 | 11,135 | 11,190 | 11,316 | 11,506 | 11,827 | 11,914 | 12,199 | 12,426 | 7.48 | 4.30 |
| Biological sciences..... | 46,112 | 46,765 | 46,747 | 47,565 | 48,852 | 49,989 | 51,778 | 54,177 | 56,452 | 58,143 | 58,753 | 27.41 | 4.08 |
| Psychology..... | 40,721 | 41,241 | 42,612 | 43,963 | 45,528 | 48,168 | 51,343 | 53,599 | 54,680 | 54,726 | 54,243 | 33.21 | -0.80 |
| Social sciences..... | 70,008 | 70,171 | 71,268 | 71,662 | 74,168 | 77,971 | 80,753 | 85,789 | 88,885 | 89,282 | 89,681 | 28.10 | 0.90 |
| Economics..... | 14,698 | 14,351 | 14,201 | 14,295 | 14,415 | 14,599 | 15,071 | 15,774 | 15,629 | 15,267 | 15,111 | 2.81 | -3.31 |
| Political science and public administration..... | 26,621 | 27,091 | 27,429 | 27,723 | 29,194 | 30,582 | 31,707 | 33,797 | 35,151 | 34,383 | 34,374 | 29.12 | -2.21 |
| Sociology..... | 7,620 | 7,553 | 7,968 | 8,077 | 8,393 | 8,965 | 9,292 | 9,990 | 10,360 | 10,485 | 10,516 | 38.01 | 1.51 |
| Anthropology..... | 5,631 | 5,805 | 5,835 | 5,945 | 6,128 | 6,479 | 6,731 | 7,123 | 7,361 | 7,665 | 7,694 | 36.64 | 4.52 |
| Linguistics..... | 3,055 | 3,109 | 3,282 | 3,243 | 3,286 | 3,404 | 3,425 | 3,277 | 3,321 | 3,279 | 3,194 | 4.55 | -3.82 |
| History of science..... | 272 | 266 | 294 | 288 | 304 | 331 | 337 | 360 | 369 | 387 | 401 | 47.43 | 8.67 |
| Other social sciences..... | 12,111 | 11,996 | 12,259 | 12,091 | 12,448 | 13,611 | 14,190 | 15,468 | 16,694 | 17,816 | 18,391 | 51.85 | 10.17 |
| Engineering..... | 95,991 | 101,874 | 103,953 | 102,829 | 104,043 | 107,625 | 113,576 | 118,035 | 116,881 | 113,060 | 107,529 | 12.02 | -8.00 |
| Aerospace engineering..... | 2,538 | 2,804 | 3,015 | 3,223 | 3,524 | 3,934 | 4,120 | 4,036 | 3,940 | 3,715 | 3,343 | 31.72 | -15.15 |
| Chemical engineering..... | 7,150 | 7,012 | 7,111 | 6,618 | 6,460 | 6,735 | 7,127 | 7,397 | 7,516 | 7,608 | 7,432 | 3.94 | -1.12 |
| Civil engineering..... | 14,902 | 14,976 | 14,682 | 14,811 | 14,909 | 15,542 | 17,398 | 19,572 | 19,583 | 19,925 | 19,218 | 28.96 | -1.86 |
| Electrical engineering..... | 28,203 | 29,969 | 31,399 | 32,035 | 33,257 | 33,722 | 35,182 | 36,460 | 35,337 | 33,052 | 31,060 | 10.13 | -12.10 |
| Mechanical engineering..... | 14,157 | 15,713 | 16,366 | 16,151 | 16,265 | 16,879 | 17,730 | 18,637 | 18,477 | 17,761 | 16,360 | 15.56 | -11.46 |
| Materials engineering..... | 3,943 | 4,208 | 4,366 | 4,337 | 4,594 | 4,941 | 5,160 | 5,512 | 5,363 | 5,191 | 4,920 | 24.78 | -8.26 |
| Industrial engineering..... | 10,499 | 11,529 | 12,220 | 11,393 | 11,094 | 11,248 | 12,676 | 13,525 | 13,596 | 13,696 | 13,182 | 25.55 | -3.05 |
| Other engineering..... | 14,599 | 15,663 | 14,794 | 14,261 | 13,940 | 14,624 | 14,183 | 12,896 | 13,069 | 12,112 | 12,014 | -17.71 | -8.07 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-2. Female graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic Discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1995 | 1985 |
| Total science and engineering..... | 110,662 | 114,423 | 117,197 | 121,276 | 125,908 | 133,752 | 140,855 | 150,332 | 156,757 | 159,338 | 160,864 | 45.4 | 2.6 | 100.0 | 100 |
| Total sciences..... | 99,582 | 102,058 | 104,234 | 108,152 | 112,308 | 119,080 | 125,140 | 133,099 | 139,065 | 141,284 | 142,712 | 43.3 | 2.6 | 88.7 | 90.0 |
| Physical sciences..... | 6,507 | 6,862 | 7,114 | 7,497 | 7,801 | 8,068 | 8,564 | 8,844 | 9,202 | 9,159 | 9,111 | 40.0 | -1.0 | 5.7 | 5.9 |
| Astronomy..... | 108 | 121 | 118 | 140 | 140 | 165 | 172 | 186 | 198 | 223 | 223 | 106.5 | 12.6 | 0.1 | 0.1 |
| Chemistry..... | 4,789 | 5,026 | 5,178 | 5,467 | 5,670 | 5,868 | 6,262 | 6,562 | 6,852 | 6,841 | 6,856 | 43.2 | 0.1 | 4.3 | 4.3 |
| Physics..... | 1,497 | 1,576 | 1,673 | 1,751 | 1,868 | 1,913 | 1,980 | 1,943 | 1,976 | 1,908 | 1,835 | 22.6 | -7.1 | 1.1 | 1.4 |
| Other physical sciences..... | 113 | 139 | 145 | 139 | 123 | 122 | 150 | 153 | 176 | 187 | 197 | 74.3 | 11.9 | 0.1 | 0.1 |
| Earth, atmospheric, and ocean sciences..... | 3,927 | 3,947 | 3,779 | 3,805 | 3,858 | 4,119 | 4,455 | 4,858 | 5,060 | 5,353 | 5,479 | 39.5 | 8.3 | 3.4 | 3.5 |
| Atmospheric sciences..... | 157 | 179 | 168 | 163 | 178 | 185 | 190 | 241 | 225 | 242 | 237 | 51.0 | 5.3 | 0.1 | 0.1 |
| Earth sciences..... | 2,484 | 2,356 | 2,164 | 2,095 | 1,963 | 1,922 | 2,008 | 2,077 | 2,110 | 2,235 | 2,302 | -7.3 | 9.1 | 1.4 | 2.2 |
| Oceanography..... | 610 | 667 | 634 | 645 | 725 | 781 | 846 | 959 | 1,004 | 1,107 | 1,099 | 80.2 | 9.5 | 0.7 | 0.6 |
| Other geosciences..... | 676 | 745 | 813 | 902 | 992 | 1,231 | 1,411 | 1,581 | 1,721 | 1,769 | 1,841 | 172.3 | 7.0 | 1.1 | 0.6 |
| Mathematics and statistics..... | 5,354 | 5,479 | 5,596 | 5,776 | 5,985 | 6,199 | 6,298 | 6,549 | 6,638 | 6,535 | 6,261 | 16.9 | -5.7 | 3.9 | 4.8 |
| Computer science..... | 7,561 | 7,852 | 8,015 | 8,194 | 7,988 | 8,199 | 8,270 | 8,467 | 8,472 | 8,152 | 8,175 | 8.1 | -3.5 | 5.1 | 6.8 |
| Agricultural sciences..... | 2,991 | 2,953 | 2,952 | 3,097 | 3,145 | 3,335 | 3,567 | 3,768 | 4,088 | 4,288 | 4,451 | 48.8 | 8.9 | 2.8 | 2.7 |
| Biological sciences..... | 19,904 | 20,471 | 20,433 | 21,261 | 22,234 | 23,042 | 24,135 | 25,475 | 27,053 | 28,155 | 28,819 | 44.8 | 6.5 | 17.9 | 18.0 |
| Psychology..... | 25,124 | 25,864 | 26,929 | 28,461 | 29,855 | 32,346 | 34,787 | 36,904 | 38,068 | 38,240 | 38,142 | 51.8 | 0.2 | 23.7 | 22.7 |
| Social sciences..... | 28,214 | 28,630 | 29,416 | 30,061 | 31,442 | 33,772 | 35,064 | 38,234 | 40,484 | 41,402 | 42,274 | 49.8 | 4.4 | 26.3 | 25.5 |
| Economics..... | 3,564 | 3,509 | 3,518 | 3,645 | 3,824 | 3,973 | 4,195 | 4,514 | 4,606 | 4,549 | 4,680 | 31.3 | 1.6 | 2.9 | 3.2 |
| Political science and public administration.... | 10,345 | 10,677 | 10,866 | 11,393 | 12,170 | 13,157 | 13,736 | 14,971 | 15,784 | 15,605 | 15,979 | 54.5 | 1.2 | 9.9 | 9.3 |
| Sociology..... | 4,037 | 4,099 | 4,352 | 4,387 | 4,565 | 4,960 | 5,101 | 5,684 | 6,080 | 6,331 | 6,341 | 57.1 | 4.3 | 3.9 | 3.6 |
| Anthropology..... | 3,121 | 3,345 | 3,353 | 3,446 | 3,580 | 3,791 | 3,953 | 4,247 | 4,392 | 4,593 | 4,556 | 46.0 | 3.7 | 2.8 | 2.8 |
| Linguistics..... | 1,857 | 1,857 | 1,977 | 1,947 | 1,952 | 2,006 | 1,913 | 1,996 | 2,020 | 2,066 | 2,000 | 7.7 | -1.0 | 1.2 | 1.7 |
| History of science..... | 92 | 97 | 96 | 104 | 112 | 118 | 132 | 130 | 142 | 140 | 139 | 51.1 | -2.1 | 0.1 | 0.1 |
| Other social sciences..... | 5,198 | 5,046 | 5,254 | 5,139 | 5,239 | 5,767 | 6,034 | 6,692 | 7,460 | 8,118 | 8,579 | 65.0 | 15.0 | 5.3 | 4.7 |
| Engineering..... | 11,080 | 12,365 | 12,963 | 13,124 | 13,600 | 14,672 | 15,715 | 17,233 | 17,692 | 18,054 | 18,152 | 63.8 | 2.6 | 11.3 | 10.0 |
| Aerospace engineering..... | 163 | 200 | 224 | 227 | 243 | 289 | 327 | 348 | 357 | 358 | 351 | 115.3 | -1.7 | 0.2 | 0.1 |
| Chemical engineering..... | 1,004 | 1,039 | 1,154 | 1,075 | 1,029 | 1,146 | 1,257 | 1,394 | 1,499 | 1,526 | 1,558 | 55.2 | 3.9 | 1.0 | 0.9 |
| Civil engineering..... | 2,147 | 2,147 | 2,103 | 2,294 | 2,435 | 2,689 | 3,102 | 3,654 | 3,858 | 4,211 | 4,232 | 97.1 | 9.7 | 2.6 | 1.9 |
| Electrical engineering..... | 2,435 | 2,908 | 3,098 | 3,278 | 3,515 | 3,715 | 3,871 | 4,293 | 4,322 | 4,104 | 4,202 | 72.6 | -2.8 | 2.6 | 2.2 |
| Mechanical engineering..... | 1,011 | 1,159 | 1,296 | 1,402 | 1,398 | 1,442 | 1,511 | 1,698 | 1,774 | 1,823 | 1,670 | 65.2 | -5.9 | 1.0 | 0.9 |
| Materials engineering..... | 603 | 675 | 729 | 756 | 810 | 893 | 987 | 1,069 | 1,027 | 1,069 | 1,059 | 75.6 | 3.1 | 0.7 | 0.5 |
| Industrial engineering..... | 1,780 | 2,095 | 2,244 | 2,093 | 2,110 | 2,137 | 2,355 | 2,655 | 2,593 | 2,800 | 2,795 | 57.0 | 7.8 | 1.7 | 1.6 |
| Other engineering..... | 1,937 | 2,142 | 2,115 | 1,999 | 2,060 | 2,361 | 2,305 | 2,122 | 2,262 | 2,163 | 2,285 | 18.0 | 1.0 | 1.4 | 1.8 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-3. Male graduate student enrollment in science and engineering, by field: 1985-1995

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| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1995 | 1985 |
| Total science and engineering..... | 247,464 | 253,696 | 256,158 | 254,011 | 256,861 | 263,407 | 271,853 | 280,465 | 279,476 | 272,420 | 263,058 | 6.3 | -5.9 | 100.0 | 100.0 |
| Total sciences..... | 162,553 | 164,187 | 165,168 | 164,306 | 166,418 | 170,454 | 173,992 | 179,663 | 180,287 | 177,414 | 173,681 | 6.8 | -3.7 | 66.0 | 65.7 |
| Physical sciences..... | 24,474 | 25,384 | 25,613 | 25,465 | 25,815 | 26,007 | 26,146 | 26,504 | 26,116 | 25,290 | 24,359 | -0.5 | -6.7 | 9.3 | 9.9 |
| Astronomy..... | 563 | 568 | 601 | 591 | 649 | 645 | 657 | 683 | 682 | 750 | 689 | 22.4 | 1.0 | 0.3 | 0.2 |
| Chemistry..... | 13,516 | 13,718 | 13,649 | 13,112 | 13,158 | 13,250 | 13,145 | 13,367 | 13,279 | 12,956 | 12,789 | -5.4 | -3.7 | 4.9 | 5.5 |
| Physics..... | 10,175 | 10,861 | 11,134 | 11,557 | 11,789 | 11,900 | 12,101 | 12,179 | 11,865 | 11,254 | 10,592 | 4.1 | -10.7 | 4.0 | 4.1 |
| Other physical sciences..... | 220 | 237 | 229 | 205 | 219 | 212 | 243 | 275 | 290 | 330 | 289 | 31.4 | -0.3 | 0.1 | 0.1 |
| Earth, atmospheric, and ocean sciences..... | 11,493 | 11,119 | 10,592 | 10,062 | 9,785 | 9,865 | 10,025 | 10,489 | 10,745 | 10,689 | 10,323 | -10.2 | -3.9 | 3.9 | 4.6 |
| Atmospheric sciences..... | 807 | 782 | 784 | 777 | 734 | 744 | 778 | 848 | 887 | 867 | 835 | 3.5 | -5.9 | 0.3 | 0.3 |
| Earth sciences..... | 7,810 | 7,463 | 6,834 | 6,368 | 6,089 | 5,770 | 5,559 | 5,667 | 5,675 | 5,506 | 5,300 | -32.1 | -6.6 | 2.0 | 3.2 |
| Oceanography..... | 1,471 | 1,461 | 1,493 | 1,388 | 1,482 | 1,552 | 1,540 | 1,571 | 1,607 | 1,746 | 1,604 | 9.0 | -0.2 | 0.6 | 0.6 |
| Other geosciences..... | 1,405 | 1,413 | 1,481 | 1,529 | 1,480 | 1,799 | 2,148 | 2,403 | 2,576 | 2,570 | 2,584 | 83.9 | 0.3 | 1.0 | 0.6 |
| Mathematics and statistics..... | 12,209 | 12,470 | 12,912 | 13,301 | 13,262 | 13,575 | 13,654 | 13,806 | 13,362 | 13,044 | 12,248 | 0.3 | -8.3 | 4.7 | 4.9 |
| Computer science..... | 22,208 | 23,497 | 24,036 | 24,033 | 24,494 | 26,058 | 26,340 | 27,853 | 27,826 | 26,126 | 25,334 | 14.1 | -9.0 | 9.6 | 9.0 |
| Agricultural sciences..... | 8,570 | 8,505 | 8,166 | 8,038 | 8,045 | 7,981 | 7,939 | 8,059 | 7,826 | 7,911 | 7,975 | -6.9 | 1.9 | 3.0 | 3.5 |
| Biological sciences..... | 26,208 | 26,294 | 26,314 | 26,304 | 26,618 | 26,947 | 27,643 | 28,702 | 29,399 | 29,988 | 29,934 | 14.2 | 1.8 | 11.4 | 10.6 |
| Psychology..... | 15,597 | 15,377 | 15,683 | 15,502 | 15,673 | 15,822 | 16,556 | 16,695 | 16,612 | 16,486 | 16,101 | 3.2 | -3.1 | 6.1 | 6.3 |
| Social sciences..... | 41,794 | 41,541 | 41,852 | 41,601 | 42,726 | 44,199 | 45,689 | 47,555 | 48,401 | 47,880 | 47,407 | 13.4 | -2.1 | 18.0 | 16.9 |
| Economics..... | 11,134 | 10,842 | 10,683 | 10,650 | 10,591 | 10,626 | 10,876 | 11,260 | 11,023 | 10,718 | 10,431 | -6.3 | -5.4 | 4.0 | 4.5 |
| Political science and public administration..... | 16,276 | 16,414 | 16,563 | 16,330 | 17,024 | 17,425 | 17,971 | 18,826 | 19,367 | 18,778 | 18,395 | 13.0 | -5.0 | 7.0 | 6.6 |
| Sociology..... | 3,583 | 3,454 | 3,616 | 3,690 | 3,828 | 4,005 | 4,191 | 4,306 | 4,280 | 4,154 | 4,175 | 16.5 | -2.5 | 1.6 | 1.4 |
| Anthropology..... | 2,510 | 2,460 | 2,482 | 2,499 | 2,548 | 2,688 | 2,778 | 2,876 | 2,969 | 3,072 | 3,138 | 25.0 | 5.7 | 1.2 | 1.0 |
| Linguistics..... | 1,198 | 1,252 | 1,305 | 1,296 | 1,334 | 1,398 | 1,512 | 1,281 | 1,301 | 1,213 | 1,194 | -0.3 | -8.2 | 0.5 | 0.5 |
| History of science..... | 180 | 169 | 198 | 184 | 192 | 213 | 205 | 230 | 227 | 247 | 262 | 45.6 | 15.4 | 0.1 | 0.1 |
| Other social sciences..... | 6,913 | 6,950 | 7,005 | 6,952 | 7,209 | 7,844 | 8,156 | 8,776 | 9,234 | 9,698 | 9,812 | 41.9 | 6.3 | 3.7 | 2.8 |
| Engineering..... | 84,911 | 89,509 | 90,990 | 89,705 | 90,443 | 92,953 | 97,861 | 100,802 | 99,189 | 95,006 | 89,377 | 5.3 | -9.9 | 34.0 | 34.3 |
| Aerospace engineering..... | 2,375 | 2,604 | 2,791 | 2,996 | 3,281 | 3,645 | 3,793 | 3,688 | 3,583 | 3,357 | 2,992 | 26.0 | -16.5 | 1.1 | 1.0 |
| Chemical engineering..... | 6,146 | 5,973 | 5,957 | 5,543 | 5,431 | 5,589 | 5,870 | 6,003 | 6,017 | 6,082 | 5,874 | -4.4 | -2.4 | 2.2 | 2.5 |
| Civil engineering..... | 12,755 | 12,829 | 12,579 | 12,517 | 12,474 | 12,853 | 14,296 | 15,918 | 15,725 | 15,714 | 14,986 | 17.5 | -4.7 | 5.7 | 5.2 |
| Electrical engineering..... | 25,768 | 27,061 | 28,301 | 28,757 | 29,742 | 30,007 | 31,311 | 32,167 | 31,015 | 28,948 | 26,858 | 4.2 | -13.4 | 10.2 | 10.4 |
| Mechanical engineering..... | 13,146 | 14,554 | 15,070 | 14,749 | 14,867 | 15,437 | 16,219 | 16,939 | 16,703 | 15,938 | 14,690 | 11.7 | -12.1 | 5.6 | 5.3 |
| Materials engineering..... | 3,340 | 3,533 | 3,637 | 3,581 | 3,784 | 4,048 | 4,173 | 4,443 | 4,336 | 4,122 | 3,861 | 15.6 | -11.0 | 1.5 | 1.3 |
| Industrial engineering..... | 8,719 | 9,434 | 9,976 | 9,300 | 8,984 | 9,111 | 10,321 | 10,870 | 11,003 | 10,896 | 10,387 | 19.1 | -5.6 | 3.9 | 3.5 |
| Other engineering..... | 12,662 | 13,521 | 12,679 | 12,262 | 11,880 | 12,263 | 11,878 | 10,774 | 10,807 | 9,949 | 9,729 | -23.2 | -10.0 | 3.7 | 5.1 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-4. Full-time graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 234,056 | 242,841 | 247,219 | 250,667 | 256,928 | 265,423 | 277,183 | 290,654 | 294,227 | 293,324 | 288,016 | 23.1 | -2.1 | 100.0 | 100.0 |
| Total sciences..... | 178,160 | 182,675 | 185,287 | 187,660 | 192,553 | 199,446 | 206,149 | 216,228 | 220,400 | 221,756 | 220,154 | 23.6 | -0.1 | 76.1 | 76.4 |
| Physical sciences..... | 26,669 | 27,762 | 28,412 | 28,574 | 29,207 | 29,485 | 30,117 | 30,673 | 30,611 | 30,043 | 28,892 | 8.3 | -5.6 | 11.4 | 10.0 |
| Earth, atmospheric, and ocean sciences. | 11,334 | 11,249 | 10,435 | 10,192 | 10,021 | 10,244 | 10,373 | 10,986 | 11,367 | 11,470 | 11,290 | -0.4 | -0.7 | 4.8 | 3.9 |
| Mathematics and statistics..... | 11,816 | 12,388 | 13,043 | 13,512 | 13,681 | 13,865 | 14,256 | 14,679 | 14,530 | 14,226 | 13,422 | 13.6 | -7.6 | 5.0 | 4.7 |
| Computer science..... | 13,861 | 15,020 | 15,336 | 15,133 | 15,606 | 16,689 | 16,516 | 17,506 | 17,399 | 16,712 | 16,564 | 19.5 | -4.8 | 5.9 | 5.8 |
| Agricultural sciences..... | 9,250 | 9,341 | 9,094 | 9,122 | 9,070 | 9,100 | 9,289 | 9,452 | 9,468 | 9,492 | 9,630 | 4.1 | 1.7 | 4.0 | 3.3 |
| Biological sciences..... | 37,001 | 37,810 | 38,235 | 39,209 | 40,348 | 40,945 | 42,700 | 44,389 | 46,481 | 48,017 | 48,283 | 30.5 | 3.9 | 15.8 | 16.8 |
| Psychology..... | 25,335 | 26,255 | 27,256 | 28,118 | 29,348 | 30,619 | 32,258 | 34,277 | 34,894 | 35,434 | 35,762 | 41.2 | 2.5 | 10.8 | 12.4 |
| Social sciences..... | 42,894 | 42,850 | 43,476 | 43,800 | 45,272 | 48,499 | 50,640 | 54,266 | 55,650 | 56,362 | 56,311 | 31.3 | 1.2 | 18.3 | 19.6 |
| Engineering..... | 55,896 | 60,166 | 61,932 | 63,007 | 64,375 | 65,977 | 71,034 | 74,426 | 73,827 | 71,568 | 67,862 | 21.4 | -8.1 | 23.9 | 23.6 |
| Aerospace engineering..... | 1,994 | 2,154 | 2,372 | 2,533 | 2,772 | 3,010 | 3,325 | 3,306 | 3,262 | 3,000 | 2,693 | 35.1 | -17.4 | 0.9 | 0.9 |
| Chemical engineering..... | 5,546 | 5,594 | 5,674 | 5,359 | 5,282 | 5,443 | 5,788 | 5,946 | 6,041 | 6,105 | 5,962 | 7.5 | -1.3 | 2.4 | 2.1 |
| Civil engineering..... | 9,749 | 9,971 | 9,628 | 9,946 | 9,964 | 10,128 | 11,328 | 12,454 | 12,458 | 12,641 | 12,248 | 25.6 | -1.7 | 4.2 | 4.3 |
| Electrical engineering..... | 14,799 | 16,290 | 17,101 | 17,706 | 18,466 | 18,675 | 19,904 | 20,996 | 20,400 | 19,414 | 18,303 | 23.7 | -10.3 | 6.3 | 6.4 |
| Mechanical engineering..... | 8,875 | 9,789 | 10,230 | 10,416 | 10,492 | 10,867 | 11,687 | 12,383 | 12,395 | 11,875 | 11,119 | 25.3 | -10.3 | 1.5 | 3.9 |
| Materials engineering..... | 3,093 | 3,370 | 3,436 | 3,466 | 3,720 | 3,930 | 4,058 | 4,274 | 4,249 | 4,108 | 3,880 | 25.4 | -8.7 | 3.8 | 1.3 |
| Industrial engineering..... | 3,456 | 3,807 | 4,156 | 4,295 | 4,658 | 4,770 | 5,598 | 6,081 | 5,902 | 5,910 | 5,328 | 54.2 | -9.7 | 1.3 | 1.8 |
| Other engineering..... | 8,384 | 9,191 | 9,335 | 9,286 | 9,021 | 9,154 | 9,346 | 8,986 | 9,120 | 8,515 | 8,329 | -0.7 | -8.7 | 3.6 | 2.9 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-5. Female full-time graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|----------------|-----------|----------------------------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | |
| Total science and engineering..... | 69,817 | 72,960 | 75,070 | 78,319 | 81,810 | 86,715 | 92,085 | 98,799 | 103,255 | 106,485 | 107,805 | 54.4 | 4.4 | 100.0 |
| Total sciences..... | 63,536 | 65,990 | 67,787 | 70,700 | 73,674 | 78,017 | 82,402 | 88,135 | 92,056 | 94,908 | 96,267 | 51.5 | 4.6 | 89.3 |
| Physical sciences..... | 5,428 | 5,740 | 6,028 | 6,366 | 6,660 | 6,821 | 7,272 | 7,500 | 7,723 | 7,766 | 7,660 | 41.1 | -0.8 | 7.1 |
| Earth, atmospheric, and ocean sciences. | 2,834 | 2,913 | 2,676 | 2,748 | 2,753 | 2,927 | 3,176 | 3,398 | 3,552 | 3,794 | 3,901 | 37.6 | 9.8 | 3.6 |
| Mathematics and statistics..... | 3,202 | 3,404 | 3,562 | 3,718 | 3,935 | 4,044 | 4,221 | 4,429 | 4,434 | 4,416 | 4,203 | 31.3 | -5.2 | 3.9 |
| Computer science..... | 3,055 | 3,317 | 3,331 | 3,338 | 3,251 | 3,471 | 3,481 | 3,559 | 3,594 | 3,559 | 3,665 | 20.0 | 2.0 | 3.4 |
| Agricultural sciences..... | 2,397 | 2,386 | 2,378 | 2,482 | 2,513 | 2,646 | 2,865 | 2,998 | 3,187 | 3,326 | 3,456 | 44.2 | 8.4 | 3.2 |
| Biological sciences..... | 15,203 | 15,817 | 16,136 | 16,805 | 17,612 | 18,156 | 19,202 | 20,159 | 21,561 | 22,524 | 22,999 | 51.3 | 6.7 | 21.3 |
| Psychology..... | 15,103 | 15,992 | 16,834 | 17,919 | 18,881 | 19,977 | 21,301 | 23,061 | 23,665 | 24,247 | 24,646 | 63.2 | 4.1 | 22.9 |
| Social sciences..... | 16,314 | 16,421 | 16,842 | 17,324 | 18,069 | 19,975 | 20,884 | 23,031 | 24,340 | 25,276 | 25,737 | 57.8 | 5.7 | 23.9 |
| Engineering..... | 6,281 | 6,970 | 7,283 | 7,619 | 8,136 | 8,698 | 9,683 | 10,664 | 11,199 | 11,577 | 11,538 | 83.7 | 3.0 | 10.7 |
| Aerospace engineering..... | 126 | 148 | 167 | 168 | 180 | 199 | 254 | 263 | 291 | 278 | 276 | 119.0 | -5.2 | 0.3 |
| Chemical engineering..... | 754 | 788 | 874 | 792 | 796 | 896 | 985 | 1,097 | 1,166 | 1,193 | 1,220 | 61.8 | 4.6 | 1.1 |
| Civil engineering..... | 1,492 | 1,487 | 1,398 | 1,565 | 1,649 | 1,781 | 2,019 | 2,328 | 2,524 | 2,786 | 2,817 | 88.8 | 11.6 | 2.6 |
| Electrical engineering..... | 1,208 | 1,467 | 1,549 | 1,682 | 1,822 | 1,956 | 2,165 | 2,426 | 2,444 | 2,391 | 2,468 | 104.3 | 1.0 | 2.3 |
| Mechanical engineering..... | 559 | 627 | 732 | 835 | 855 | 848 | 942 | 1,086 | 1,185 | 1,217 | 1,131 | 102.3 | -4.6 | 1.0 |
| Materials engineering..... | 439 | 521 | 569 | 579 | 639 | 692 | 742 | 807 | 802 | 840 | 816 | 85.9 | 1.7 | 0.8 |
| Industrial engineering..... | 635 | 734 | 734 | 736 | 907 | 908 | 1,042 | 1,175 | 1,173 | 1,298 | 1,170 | 84.3 | -0.3 | 1.1 |
| Other engineering..... | 1,068 | 1,198 | 1,260 | 1,262 | 1,288 | 1,418 | 1,534 | 1,482 | 1,614 | 1,574 | 1,640 | 53.6 | 1.6 | 1.5 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-6. Male full-time graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion 1995 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|----------------------------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | |
| Total science and engineering..... | 164,239 | 169,881 | 172,149 | 172,348 | 175,118 | 178,708 | 185,098 | 191,855 | 190,972 | 186,839 | 180,211 | 9.7 | -5.6 | 100.0 |
| Total sciences..... | 114,624 | 116,685 | 117,500 | 116,960 | 118,879 | 121,429 | 123,747 | 128,093 | 128,344 | 126,848 | 123,887 | 8.1 | -3.5 | 68.7 |
| Physical sciences..... | 21,241 | 22,022 | 22,384 | 22,208 | 22,547 | 22,664 | 22,845 | 23,173 | 22,888 | 22,277 | 21,232 | 0.0 | -7.2 | 11.8 |
| Earth, atmospheric, and ocean sciences.... | 8,500 | 8,336 | 7,759 | 7,444 | 7,268 | 7,317 | 7,197 | 7,588 | 7,815 | 7,676 | 7,389 | -13.1 | -5.5 | 4.1 |
| Mathematics and statistics..... | 8,614 | 8,984 | 9,481 | 9,794 | 9,746 | 9,821 | 10,035 | 10,250 | 10,096 | 9,810 | 9,219 | 7.0 | -8.7 | 5.1 |
| Computer science..... | 10,806 | 11,703 | 12,005 | 11,795 | 12,355 | 13,218 | 13,035 | 13,947 | 13,805 | 13,153 | 12,899 | 19.4 | -6.6 | 7.2 |
| Agricultural sciences..... | 6,853 | 6,955 | 6,716 | 6,640 | 6,557 | 6,454 | 6,424 | 6,454 | 6,281 | 6,166 | 6,174 | -9.9 | -1.7 | 3.4 |
| Biological sciences..... | 21,798 | 21,993 | 22,099 | 22,404 | 22,736 | 22,789 | 23,498 | 24,230 | 24,920 | 25,493 | 25,284 | 16.0 | 1.5 | 14.0 |
| Psychology..... | 10,232 | 10,263 | 10,422 | 10,199 | 10,467 | 10,642 | 10,957 | 11,216 | 11,229 | 11,187 | 11,116 | 8.6 | -1.0 | 6.2 |
| Social sciences..... | 26,580 | 26,429 | 26,634 | 26,476 | 27,203 | 28,524 | 29,756 | 31,235 | 31,310 | 31,086 | 30,574 | 15.0 | -2.4 | 17.0 |
| Engineering..... | 49,615 | 53,196 | 54,649 | 55,388 | 56,239 | 57,279 | 61,351 | 63,762 | 62,628 | 59,991 | 56,324 | 13.5 | -10.1 | 31.3 |
| Aerospace engineering..... | 1,868 | 2,006 | 2,205 | 2,365 | 2,592 | 2,811 | 3,071 | 3,043 | 2,971 | 2,722 | 2,417 | 29.4 | -18.6 | 1.3 |
| Chemical engineering..... | 4,792 | 4,806 | 4,800 | 4,567 | 4,486 | 4,547 | 4,803 | 4,849 | 4,875 | 4,912 | 4,742 | -1.0 | -2.7 | 2.6 |
| Civil engineering..... | 8,257 | 8,484 | 8,230 | 8,381 | 8,315 | 8,347 | 9,309 | 10,126 | 9,934 | 9,855 | 9,431 | 14.2 | -5.1 | 5.2 |
| Electrical engineering..... | 13,591 | 14,823 | 15,552 | 16,024 | 16,644 | 16,719 | 17,739 | 18,570 | 17,956 | 17,023 | 15,835 | 16.5 | -11.8 | 8.8 |
| Mechanical engineering..... | 8,316 | 9,162 | 9,498 | 9,581 | 9,637 | 10,019 | 10,745 | 11,297 | 11,210 | 10,658 | 9,988 | 20.1 | -10.9 | 5.5 |
| Materials engineering..... | 2,654 | 2,849 | 2,867 | 2,887 | 3,081 | 3,238 | 3,316 | 3,467 | 3,447 | 3,268 | 3,064 | 15.4 | -11.1 | 1.7 |
| Industrial engineering..... | 2,821 | 3,073 | 3,422 | 3,559 | 3,751 | 3,861 | 4,556 | 4,906 | 4,729 | 4,612 | 4,158 | 47.4 | -12.1 | 2.3 |
| Other engineering..... | 7,316 | 7,993 | 8,075 | 8,024 | 7,733 | 7,736 | 7,812 | 7,504 | 7,506 | 6,941 | 6,689 | -8.6 | -10.9 | 3.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-7. Part-time graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 124,070 | 125,278 | 126,136 | 124,620 | 125,841 | 131,736 | 135,525 | 140,143 | 142,006 | 138,434 | 135,906 | 9.5 | -4.3 | 100.0 | 100.0 |
| Total sciences..... | 83,975 | 83,570 | 84,115 | 84,798 | 86,173 | 90,088 | 92,983 | 96,534 | 98,952 | 96,942 | 96,239 | 14.6 | -2.7 | 67.7 | 70.8 |
| Physical sciences..... | 4,312 | 4,484 | 4,315 | 4,388 | 4,409 | 4,590 | 4,593 | 4,675 | 4,707 | 4,406 | 4,578 | 6.2 | -2.7 | 3.5 | 3.4 |
| Earth, atmospheric, and ocean sciences.... | 4,086 | 3,817 | 3,936 | 3,675 | 3,622 | 3,740 | 4,107 | 4,361 | 4,438 | 4,572 | 4,512 | 10.4 | 1.7 | 3.3 | 3.3 |
| Mathematics and statistics..... | 5,747 | 5,561 | 5,465 | 5,565 | 5,566 | 5,909 | 5,696 | 5,676 | 5,470 | 5,353 | 5,087 | -11.5 | -7.0 | 4.6 | 3.7 |
| Computer science..... | 15,908 | 16,329 | 16,715 | 17,094 | 16,876 | 17,568 | 18,094 | 18,814 | 18,899 | 17,566 | 16,945 | 6.5 | -10.3 | 12.8 | 12.5 |
| Agricultural sciences..... | 2,311 | 2,117 | 2,024 | 2,013 | 2,120 | 2,216 | 2,217 | 2,375 | 2,446 | 2,707 | 2,796 | 21.0 | 14.3 | 1.9 | 2.1 |
| Biological sciences..... | 9,111 | 8,955 | 8,512 | 8,356 | 8,504 | 9,044 | 9,078 | 9,788 | 9,971 | 10,126 | 10,470 | 14.9 | 5.0 | 7.3 | 7.7 |
| Psychology..... | 15,386 | 14,986 | 15,356 | 15,845 | 16,180 | 17,549 | 19,085 | 19,322 | 19,786 | 19,292 | 18,481 | 20.1 | -6.6 | 12.4 | 13.6 |
| Social sciences..... | 27,114 | 27,321 | 27,792 | 27,862 | 28,896 | 29,472 | 30,113 | 31,523 | 33,235 | 32,920 | 33,370 | 23.1 | 0.4 | 21.9 | 24.6 |
| Engineering..... | 40,095 | 41,708 | 42,021 | 39,822 | 39,668 | 41,648 | 42,542 | 43,609 | 43,054 | 41,492 | 39,667 | -1.1 | -7.9 | 32.3 | 29.2 |
| Aerospace engineering..... | 544 | 650 | 643 | 690 | 752 | 924 | 795 | 730 | 678 | 715 | 650 | 19.5 | -4.1 | 0.4 | 0.5 |
| Chemical engineering..... | 1,604 | 1,418 | 1,437 | 1,259 | 1,178 | 1,292 | 1,339 | 1,451 | 1,475 | 1,503 | 1,470 | -8.4 | -0.3 | 1.3 | 1.1 |
| Civil engineering..... | 5,153 | 5,005 | 5,054 | 4,885 | 4,945 | 5,414 | 6,070 | 7,118 | 7,125 | 7,284 | 6,970 | 35.3 | -2.2 | 4.2 | 5.1 |
| Electrical engineering..... | 13,404 | 13,679 | 14,298 | 14,329 | 14,791 | 15,047 | 15,278 | 15,464 | 14,937 | 13,638 | 12,757 | -4.8 | -14.6 | 10.8 | 9.4 |
| Mechanical engineering..... | 5,282 | 5,924 | 6,136 | 5,735 | 5,773 | 6,012 | 6,043 | 6,254 | 6,082 | 5,886 | 5,241 | -0.8 | -13.8 | 4.3 | 3.9 |
| Materials engineering..... | 850 | 838 | 930 | 871 | 874 | 1,011 | 1,102 | 1,238 | 1,114 | 1,083 | 1,040 | 22.4 | -6.6 | 0.7 | 0.8 |
| Industrial engineering..... | 7,043 | 7,722 | 8,064 | 7,098 | 6,436 | 6,478 | 7,078 | 7,444 | 7,694 | 7,786 | 7,854 | 11.5 | 2.1 | 5.7 | 5.8 |
| Other engineering..... | 6,215 | 6,472 | 5,459 | 4,975 | 4,919 | 5,470 | 4,837 | 3,910 | 3,949 | 3,597 | 3,685 | -40.7 | -6.7 | 5.0 | 2.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-8. Female part-time graduate student enrollment in science and engineering, by field: 1985-1995

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 40,845 | 41,463 | 42,127 | 42,957 | 44,098 | 47,037 | 48,770 | 51,533 | 53,502 | 52,853 | 53,059 | 29.9 | -0.8 | 100.0 | 100.0 |
| Total sciences..... | 36,046 | 36,068 | 36,447 | 37,452 | 38,634 | 41,063 | 42,738 | 44,964 | 47,009 | 46,376 | 46,445 | 28.8 | -1.2 | 88.3 | 87.5 |
| Physical sciences..... | 1,079 | 1,122 | 1,086 | 1,131 | 1,141 | 1,247 | 1,292 | 1,344 | 1,479 | 1,393 | 1,451 | 34.5 | -1.9 | 2.6 | 2.7 |
| Earth, atmospheric, and ocean sciences..... | 1,093 | 1,034 | 1,103 | 1,057 | 1,105 | 1,192 | 1,279 | 1,460 | 1,508 | 1,559 | 1,578 | 44.4 | 4.6 | 2.7 | 3.0 |
| Mathematics and statistics..... | 2,152 | 2,075 | 2,034 | 2,058 | 2,050 | 2,155 | 2,077 | 2,120 | 2,204 | 2,119 | 2,058 | -4.4 | -6.6 | 5.3 | 3.9 |
| Computer science..... | 4,506 | 4,535 | 4,684 | 4,856 | 4,737 | 4,728 | 4,789 | 4,908 | 4,878 | 4,593 | 4,510 | 0.1 | -7.5 | 11.0 | 8.5 |
| Agricultural sciences..... | 594 | 567 | 574 | 615 | 632 | 689 | 702 | 770 | 901 | 962 | 995 | 67.5 | 10.4 | 1.5 | 1.9 |
| Biological sciences..... | 4,701 | 4,654 | 4,297 | 4,456 | 4,622 | 4,886 | 4,933 | 5,316 | 5,492 | 5,631 | 5,820 | 23.8 | 6.0 | 11.5 | 11.0 |
| Psychology..... | 10,021 | 9,872 | 10,095 | 10,542 | 10,974 | 12,369 | 13,486 | 13,843 | 14,403 | 13,993 | 13,496 | 34.7 | -6.3 | 24.5 | 25.4 |
| Social sciences..... | 11,900 | 12,209 | 12,574 | 12,737 | 13,373 | 13,797 | 14,180 | 15,203 | 16,144 | 16,126 | 16,537 | 39.0 | 2.4 | 29.1 | 31.2 |
| Engineering..... | 4,799 | 5,395 | 5,680 | 5,505 | 5,464 | 5,974 | 6,032 | 6,569 | 6,493 | 6,477 | 6,614 | 37.8 | 1.9 | 11.7 | 12.5 |
| Aerospace engineering..... | 37 | 52 | 57 | 59 | 63 | 90 | 73 | 85 | 66 | 80 | 75 | 102.7 | 13.6 | 0.1 | 0.1 |
| Chemical engineering..... | 250 | 251 | 280 | 283 | 233 | 250 | 272 | 297 | 333 | 333 | 338 | 35.2 | 1.5 | 0.6 | 0.6 |
| Civil engineering..... | 655 | 660 | 705 | 729 | 786 | 908 | 1,083 | 1,326 | 1,334 | 1,425 | 1,415 | 116.0 | 6.1 | 1.6 | 2.7 |
| Electrical engineering..... | 1,227 | 1,441 | 1,549 | 1,596 | 1,693 | 1,759 | 1,706 | 1,867 | 1,878 | 1,713 | 1,734 | 41.3 | -7.7 | 3.0 | 3.3 |
| Mechanical engineering..... | 452 | 532 | 564 | 567 | 543 | 594 | 569 | 612 | 589 | 606 | 539 | 19.2 | -8.5 | 1.1 | 1.0 |
| Materials engineering..... | 164 | 154 | 160 | 177 | 171 | 201 | 245 | 262 | 225 | 229 | 243 | 48.2 | 8.0 | 0.4 | 0.5 |
| Industrial engineering..... | 1,145 | 1,361 | 1,510 | 1,357 | 1,203 | 1,229 | 1,313 | 1,480 | 1,420 | 1,502 | 1,625 | 41.9 | 14.4 | 2.8 | 3.1 |
| Other engineering..... | 869 | 944 | 855 | 737 | 772 | 943 | 771 | 640 | 648 | 589 | 645 | -25.8 | -0.5 | 2.1 | 1.2 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-9. Male part-time graduate student enrollment in science and engineering, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 83,225 | 83,815 | 84,009 | 81,663 | 81,743 | 84,699 | 86,755 | 88,610 | 88,504 | 85,581 | 82,847 | -0.5 | -6.4 | 100.0 | 100.0 |
| Total sciences..... | 47,929 | 47,502 | 47,668 | 47,346 | 47,539 | 49,025 | 50,245 | 51,570 | 51,943 | 50,566 | 49,794 | 3.9 | -4.1 | 57.6 | 60.1 |
| Physical sciences..... | 3,233 | 3,362 | 3,229 | 3,257 | 3,268 | 3,343 | 3,301 | 3,331 | 3,228 | 3,013 | 3,127 | -3.3 | -3.1 | 3.9 | 3.8 |
| Earth, atmospheric, and ocean sciences.. | 2,993 | 2,783 | 2,833 | 2,618 | 2,517 | 2,548 | 2,828 | 2,901 | 2,930 | 3,013 | 2,934 | -2.0 | 0.1 | 3.6 | 3.5 |
| Mathematics and statistics..... | 3,595 | 3,486 | 3,431 | 3,507 | 3,516 | 3,754 | 3,619 | 3,556 | 3,266 | 3,234 | 3,029 | -15.7 | -7.3 | 4.3 | 3.7 |
| Computer science..... | 11,402 | 11,794 | 12,031 | 12,238 | 12,139 | 12,840 | 13,305 | 13,906 | 14,021 | 12,973 | 12,435 | 9.1 | -11.3 | 13.7 | 15.0 |
| Agricultural sciences..... | 1,717 | 1,550 | 1,450 | 1,398 | 1,488 | 1,527 | 1,515 | 1,605 | 1,545 | 1,745 | 1,801 | 4.9 | 16.6 | 2.1 | 2.2 |
| Biological sciences..... | 4,410 | 4,301 | 4,215 | 3,900 | 3,882 | 4,158 | 4,145 | 4,472 | 4,479 | 4,495 | 4,650 | 5.4 | 3.8 | 5.3 | 5.6 |
| Psychology..... | 5,365 | 5,114 | 5,261 | 5,303 | 5,206 | 5,180 | 5,599 | 5,479 | 5,383 | 5,299 | 4,985 | -7.1 | -7.4 | 6.4 | 6.0 |
| Social sciences..... | 15,214 | 15,112 | 15,218 | 15,125 | 15,523 | 15,675 | 15,933 | 16,320 | 17,091 | 16,794 | 16,833 | 10.6 | -1.5 | 18.3 | 20.3 |
| Engineering..... | 35,296 | 36,313 | 36,341 | 34,317 | 34,204 | 35,674 | 36,510 | 37,040 | 36,561 | 35,015 | 33,053 | -6.4 | -9.6 | 42.4 | 39.9 |
| Aerospace engineering..... | 507 | 598 | 586 | 631 | 689 | 834 | 722 | 645 | 612 | 635 | 575 | 13.4 | -6.0 | 0.6 | 0.7 |
| Chemical engineering..... | 1,354 | 1,167 | 1,157 | 976 | 945 | 1,042 | 1,067 | 1,154 | 1,142 | 1,170 | 1,132 | -16.4 | -0.9 | 1.6 | 1.4 |
| Civil engineering..... | 4,498 | 4,345 | 4,349 | 4,136 | 4,198 | 4,506 | 4,987 | 5,792 | 5,791 | 5,859 | 5,555 | 23.5 | -4.1 | 5.4 | 6.7 |
| Electrical engineering..... | 12,177 | 12,238 | 12,749 | 12,733 | 13,098 | 13,288 | 13,572 | 13,597 | 13,059 | 11,925 | 11,023 | -9.5 | -15.6 | 14.6 | 13.3 |
| Mechanical engineering..... | 4,830 | 5,392 | 5,572 | 5,168 | 5,230 | 5,418 | 5,474 | 5,642 | 5,493 | 5,280 | 4,702 | -2.7 | -14.4 | 5.8 | 5.7 |
| Materials engineering..... | 686 | 684 | 770 | 694 | 703 | 810 | 857 | 976 | 889 | 854 | 797 | 16.2 | -10.3 | 0.8 | 1.0 |
| Industrial engineering..... | 5,898 | 6,361 | 6,554 | 5,741 | 5,233 | 5,249 | 5,765 | 5,964 | 6,274 | 6,284 | 6,229 | 5.6 | -0.7 | 7.1 | 7.5 |
| Other engineering..... | 5,346 | 5,528 | 4,604 | 4,238 | 4,147 | 4,527 | 4,066 | 3,270 | 3,301 | 3,008 | 3,040 | -43.1 | -7.9 | 6.4 | 3.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-10. Full-time graduate students in science, engineering, and health in all institutions, by sex, source of major support, and field: 1995

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| Source of major support | Total, all surveyed fields | Sciences | | | | | | | | |
|-----------------------------------|-------------------------------------|--------------------|----------------------|--|-------------------------------|----------------------|-------------------------------|-----------------------------|-----------------|--------------------|
| | | Sciences, total | Physical sciences | Earth, atmos- pheric, and ocean sciences | Mathe- matical sciences | Computer sciences | Agri- cultural sciences | Bio- logical sciences | Psychol- ogy | Social sciences |
| Total | | | | | | | | | | |
| Total, all sources..... | 330,235 | 220,154 | 28,892 | 11,290 | 13,422 | 16,564 | 9,630 | 48,283 | 35,762 | 56,311 |
| Federal, total..... | 67,469 | 43,145 | 10,353 | 3,489 | 1,291 | 3,175 | 2,048 | 16,593 | 2,576 | 3,620 |
| Dept. of Defense..... | 9,421 | 4,232 | 1,197 | 421 | 322 | 1,443 | 32 | 357 | 175 | 285 |
| Dept. of HHS, total..... | 22,753 | 16,151 | 2,041 | 34 | 87 | 111 | 27 | 12,048 | 1,324 | 479 |
| NIH..... | 18,115 | 14,894 | 1,861 | 31 | 63 | 93 | 21 | 11,390 | 1,109 | 326 |
| Other HHS..... | 4,638 | 1,257 | 180 | 3 | 24 | 18 | 6 | 658 | 215 | 153 |
| NSF..... | 13,665 | 8,955 | 3,583 | 1,387 | 474 | 1,051 | 88 | 1,406 | 288 | 678 |
| USDA..... | 3,244 | 2,847 | 38 | 65 | 13 | 13 | 1,192 | 1,083 | 16 | 427 |
| All other Federal | 18,386 | 10,960 | 3,494 | 1,582 | 395 | 557 | 709 | 1,699 | 773 | 1,751 |
| Institutional support..... | 129,903 | 96,989 | 14,858 | 4,445 | 9,169 | 5,492 | 3,882 | 20,805 | 13,091 | 25,247 |
| Other outside support, total..... | 26,114 | 14,924 | 2,079 | 991 | 478 | 1,309 | 1,489 | 3,923 | 1,144 | 3,511 |
| All other U.S..... | 20,564 | 11,549 | 1,792 | 756 | 291 | 1,065 | 1,090 | 3,317 | 1,101 | 2,137 |
| Foreign..... | 5,550 | 3,375 | 287 | 235 | 187 | 244 | 399 | 606 | 43 | 1,374 |
| Self-support..... | 106,749 | 65,096 | 1,602 | 2,365 | 2,484 | 6,588 | 2,211 | 6,962 | 18,951 | 23,933 |
| Men | | | | | | | | | | |
| Total, all sources..... | 191,695 | 123,887 | 21,232 | 7,389 | 9,219 | 12,899 | 6,174 | 25,284 | 11,116 | 30,574 |
| Federal, total..... | 42,860 | 26,880 | 7,842 | 2,377 | 975 | 2,629 | 1,312 | 8,887 | 890 | 1,968 |
| Dept. of Defense..... | 7,799 | 3,354 | 992 | 318 | 280 | 1,238 | 24 | 195 | 83 | 224 |
| Dept. of HHS, total..... | 10,803 | 8,567 | 1,328 | 23 | 67 | 86 | 18 | 6,417 | 445 | 183 |
| NIH..... | 9,601 | 7,937 | 1,196 | 21 | 50 | 76 | 15 | 6,088 | 379 | 112 |
| Other HHS..... | 1,202 | 630 | 132 | 2 | 17 | 10 | 3 | 329 | 66 | 71 |
| NSF..... | 9,958 | 6,174 | 2,770 | 928 | 331 | 858 | 54 | 751 | 114 | 368 |
| USDA..... | 2,019 | 1,703 | 31 | 44 | 10 | 10 | 754 | 591 | 5 | 258 |
| All other Federal | 12,281 | 7,082 | 2,721 | 1,064 | 287 | 437 | 462 | 933 | 243 | 935 |
| Institutional support..... | 78,667 | 56,013 | 10,709 | 2,822 | 6,347 | 4,314 | 2,498 | 11,034 | 4,518 | 13,771 |
| Other outside support, total..... | 17,942 | 9,373 | 1,539 | 708 | 340 | 1,028 | 1,048 | 2,161 | 388 | 2,161 |
| All other U.S..... | 13,783 | 6,906 | 1,305 | 515 | 198 | 825 | 725 | 1,784 | 374 | 1,180 |
| Foreign..... | 4,159 | 2,467 | 234 | 193 | 142 | 203 | 323 | 377 | 14 | 981 |
| Self-support..... | 52,226 | 31,621 | 1,142 | 1,482 | 1,557 | 4,928 | 1,316 | 3,202 | 5,320 | 12,674 |
| Women | | | | | | | | | | |
| Total, all sources..... | 138,540 | 96,267 | 7,660 | 3,901 | 4,203 | 3,665 | 3,456 | 22,999 | 24,646 | 25,737 |
| Federal, total..... | 24,609 | 16,265 | 2,511 | 1,112 | 316 | 546 | 736 | 7,706 | 1,686 | 1,652 |
| Dept. of Defense..... | 1,622 | 878 | 205 | 103 | 42 | 205 | 8 | 162 | 92 | 61 |
| Dept. of HHS, total..... | 11,950 | 7,584 | 713 | 11 | 20 | 25 | 9 | 5,631 | 879 | 296 |
| NIH..... | 8,514 | 6,957 | 665 | 10 | 13 | 17 | 6 | 5,302 | 730 | 214 |
| Other HHS..... | 3,436 | 627 | 48 | 1 | 7 | 8 | 3 | 329 | 149 | 82 |
| NSF..... | 3,707 | 2,781 | 813 | 459 | 143 | 193 | 34 | 655 | 174 | 310 |
| USDA..... | 1,225 | 1,144 | 7 | 21 | 3 | 3 | 438 | 492 | 11 | 169 |
| All other Federal | 6,105 | 3,878 | 773 | 518 | 108 | 120 | 247 | 766 | 530 | 816 |
| Institutional support..... | 51,236 | 40,976 | 4,149 | 1,623 | 2,822 | 1,178 | 1,384 | 9,771 | 8,573 | 11,476 |
| Other outside support, total..... | 8,172 | 5,551 | 540 | 283 | 138 | 281 | 441 | 1,762 | 756 | 1,350 |
| All other U.S..... | 6,781 | 4,643 | 487 | 241 | 93 | 240 | 365 | 1,533 | 727 | 957 |
| Foreign..... | 1,391 | 908 | 53 | 42 | 45 | 41 | 76 | 229 | 29 | 393 |
| Self-support..... | 54,523 | 33,475 | 460 | 883 | 927 | 1,660 | 895 | 3,760 | 13,631 | 11,259 |

See explanatory information and SOURCES at end of table.

Appendix table 4-10. Full-time graduate students in science, engineering, and health in all institutions, by sex, source of major support, and field: 1995

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| Source of major support | Total engineering | | | | | | | | | |
|-----------------------------------|--------------------|-----------------------|----------------------|-------------------|------------------------|------------------------|------------------------|---|-------------------|--------|
| | Engineering, total | Aerospace engineering | Chemical engineering | Civil engineering | Electrical engineering | Industrial engineering | Mechanical engineering | Metallurgical and materials engineering | Other engineering | |
| | Total | | | | | | | | | |
| Total, all sources..... | 67,862 | 2,693 | 5,962 | 12,248 | 18,303 | 5,328 | 11,119 | 3,880 | 8,329 | 42,219 |
| Federal, total..... | 16,323 | 1,109 | 1,754 | 1,970 | 4,085 | 648 | 2,773 | 1,544 | 2,440 | 8,001 |
| Dept. of Defense..... | 4,807 | 535 | 164 | 290 | 1,706 | 188 | 821 | 468 | 635 | 382 |
| Dept. of HHS, total..... | 918 | 5 | 163 | 41 | 113 | 54 | 93 | 25 | 424 | 5,684 |
| NIH..... | 768 | 1 | 136 | 31 | 84 | 27 | 82 | 11 | 396 | 2,453 |
| Other HHS..... | 150 | 4 | 27 | 10 | 29 | 27 | 11 | 14 | 28 | 3,231 |
| NSF..... | 4,611 | 121 | 761 | 530 | 1,353 | 175 | 742 | 495 | 434 | 99 |
| USDA..... | 342 | 2 | 66 | 53 | 34 | 0 | 4 | 3 | 180 | 55 |
| All other Federal | 5,645 | 446 | 600 | 1,056 | 879 | 231 | 1,113 | 553 | 767 | 1,781 |
| Institutional support..... | 23,844 | 817 | 2,262 | 4,861 | 6,234 | 1,858 | 3,896 | 1,177 | 2,739 | 9,070 |
| Other outside support, total..... | 9,121 | 234 | 1,105 | 1,180 | 2,552 | 498 | 1,606 | 708 | 1,238 | 2,069 |
| All other U.S..... | 7,477 | 178 | 967 | 892 | 2,134 | 420 | 1,352 | 592 | 942 | 1,538 |
| Foreign..... | 1,644 | 56 | 138 | 288 | 418 | 78 | 254 | 116 | 296 | 531 |
| Self-support..... | 18,574 | 533 | 841 | 4,237 | 5,432 | 2,324 | 2,844 | 451 | 1,912 | 23,079 |
| | Men | | | | | | | | | |
| Total, all sources..... | 56,324 | 2,417 | 4,742 | 9,431 | 15,835 | 4,158 | 9,988 | 3,064 | 6,689 | 11,484 |
| Federal, total..... | 13,697 | 995 | 1,406 | 1,517 | 3,578 | 511 | 2,476 | 1,248 | 1,966 | 2,283 |
| Dept. of Defense..... | 4,250 | 500 | 140 | 232 | 1,528 | 157 | 758 | 387 | 548 | 195 |
| Dept. of HHS, total..... | 692 | 5 | 125 | 26 | 95 | 31 | 80 | 22 | 308 | 1,544 |
| NIH..... | 575 | 1 | 100 | 17 | 72 | 19 | 71 | 11 | 284 | 1,089 |
| Other HHS..... | 117 | 4 | 25 | 9 | 23 | 12 | 9 | 11 | 24 | 455 |
| NSF..... | 3,734 | 96 | 594 | 399 | 1,149 | 139 | 646 | 387 | 324 | 50 |
| USDA..... | 280 | 1 | 54 | 44 | 30 | 0 | 3 | 1 | 147 | 36 |
| All other Federal | 4,741 | 393 | 493 | 816 | 776 | 184 | 989 | 451 | 639 | 458 |
| Institutional support..... | 19,627 | 707 | 1,802 | 3,706 | 5,421 | 1,420 | 3,455 | 909 | 2,207 | 3,027 |
| Other outside support, total..... | 7,747 | 219 | 867 | 948 | 2,263 | 420 | 1,467 | 563 | 1,000 | 822 |
| All other U.S..... | 6,278 | 163 | 764 | 693 | 1,873 | 345 | 1,226 | 469 | 745 | 599 |
| Foreign..... | 1,469 | 56 | 103 | 255 | 390 | 75 | 241 | 94 | 255 | 223 |
| Self-support..... | 15,253 | 496 | 667 | 3,260 | 4,573 | 1,807 | 2,590 | 344 | 1,516 | 5,352 |
| | Women | | | | | | | | | |
| Total, all sources..... | 11,538 | 276 | 1,220 | 2,817 | 2,468 | 1,170 | 1,131 | 816 | 1,640 | 30,735 |
| Federal, total..... | 2,626 | 114 | 348 | 453 | 507 | 137 | 297 | 296 | 474 | 5,718 |
| Dept. of Defense..... | 557 | 35 | 24 | 58 | 178 | 31 | 63 | 81 | 87 | 187 |
| Dept. of HHS, total..... | 226 | 0 | 38 | 15 | 18 | 23 | 13 | 3 | 116 | 4,140 |
| NIH..... | 193 | 0 | 36 | 14 | 12 | 8 | 11 | 0 | 112 | 1,364 |
| Other HHS..... | 33 | 0 | 2 | 1 | 6 | 15 | 2 | 3 | 4 | 2,776 |
| NSF..... | 877 | 25 | 167 | 131 | 204 | 36 | 96 | 108 | 110 | 49 |
| USDA..... | 62 | 1 | 12 | 9 | 4 | 0 | 1 | 2 | 33 | 19 |
| All other Federal | 904 | 53 | 107 | 240 | 103 | 47 | 124 | 102 | 128 | 1,323 |
| Institutional support..... | 4,217 | 110 | 460 | 1,155 | 813 | 438 | 441 | 268 | 532 | 6,043 |
| Other outside support, total..... | 1,374 | 15 | 238 | 232 | 289 | 78 | 139 | 145 | 238 | 1,247 |
| All other U.S..... | 1,199 | 15 | 203 | 199 | 261 | 75 | 126 | 123 | 197 | 939 |
| Foreign..... | 175 | 0 | 35 | 33 | 28 | 3 | 13 | 22 | 41 | 308 |
| Self-support..... | 3,321 | 37 | 174 | 977 | 859 | 517 | 254 | 107 | 396 | 17,727 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS, Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-11. Female graduate science and engineering student enrollment, by institutional rank: 1985-1995

| | Academic Institution | Page 1 of 1 | | | | | | | | | | |
|----|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| 1 | University of Minnesota, all campuses..... | 1,496 | 1,562 | 1,545 | 1,613 | 1,748 | 1,711 | 1,791 | 1,871 | 1,996 | 1,893 | 1,880 |
| 2 | University of Wisconsin-Madison..... | 1,263 | 1,327 | 1,359 | 1,415 | 1,475 | 1,565 | 1,639 | 1,720 | 1,777 | 1,711 | 1,671 |
| 3 | George Washington University..... | 818 | 1,155 | 1,479 | 1,388 | 1,373 | 1,440 | 1,468 | 1,610 | 1,633 | 1,672 | 1,662 |
| 4 | Rutgers the State University of NJ, all campuses..... | 1,298 | 1,347 | 1,309 | 1,319 | 1,408 | 1,437 | 1,465 | 1,544 | 1,527 | 1,518 | 1,523 |
| 5 | University of California-Berkeley..... | 1,283 | 1,318 | 1,327 | 1,295 | 1,293 | 1,398 | 1,377 | 1,409 | 1,447 | 1,456 | 1,498 |
| 6 | University of Michigan, all campuses..... | 1,014 | 1,035 | 1,114 | 1,168 | 1,179 | 1,247 | 1,251 | 1,395 | 1,522 | 1,524 | 1,462 |
| 7 | University of Colorado, all campuses..... | 847 | 899 | 959 | 907 | 982 | 1,124 | 1,220 | 1,344 | 1,476 | 1,391 | 1,459 |
| 8 | Indiana University, all campuses..... | 587 | 643 | 702 | 705 | 912 | 1,252 | 1,331 | 1,419 | 1,472 | 1,440 | 1,423 |
| 9 | University of Washington..... | 1,003 | 1,058 | 1,085 | 1,143 | 1,188 | 1,284 | 1,320 | 1,346 | 1,340 | 1,376 | 1,411 |
| 10 | University of Illinois at Urbana-Champaign..... | 945 | 1,015 | 1,147 | 1,171 | 1,199 | 1,178 | 1,202 | 1,335 | 1,379 | 1,363 | 1,403 |
| 11 | University of Maryland at College Park..... | 1,070 | 1,059 | 1,071 | 1,109 | 1,155 | 1,197 | 1,173 | 1,248 | 1,292 | 1,354 | 1,386 |
| 12 | Ohio State University, all campuses..... | 1,000 | 1,067 | 1,149 | 1,164 | 1,160 | 1,132 | 1,330 | 1,325 | 1,390 | 1,340 | 1,363 |
| 13 | Pennsylvania State University, all campuses..... | 923 | 1,027 | 1,002 | 1,124 | 1,144 | 1,168 | 1,207 | 1,218 | 1,255 | 1,284 | 1,321 |
| 14 | Cornell University, all campuses..... | 883 | 969 | 982 | 1,010 | 1,034 | 1,051 | 1,097 | 1,308 | 1,298 | 1,317 | 1,320 |
| 15 | New York University..... | 1,374 | 1,290 | 1,241 | 1,094 | 1,151 | 1,125 | 1,242 | 1,216 | 1,322 | 1,300 | 1,312 |
| 16 | Texas A&M University, all campuses..... | 900 | 939 | 1,024 | 1,102 | 1,202 | 1,305 | 1,286 | 1,391 | 1,369 | 1,347 | 1,310 |
| 17 | Harvard University..... | 897 | 915 | 791 | 892 | 854 | 946 | 1,025 | 1,225 | 1,269 | 1,297 | 1,299 |
| 18 | University of California-Los Angeles..... | 838 | 837 | 856 | 875 | 916 | 924 | 1,027 | 1,074 | 1,188 | 1,332 | 1,263 |
| 19 | University of Southern California..... | 1,668 | 1,729 | 1,675 | 1,616 | 1,500 | 1,228 | 1,238 | 1,368 | 1,369 | 1,262 | 1,259 |
| 20 | Teachers College, Columbia University..... | 910 | 891 | 936 | 1,067 | 1,026 | 968 | 1,029 | 1,063 | 1,131 | 1,145 | 1,177 |
| 21 | University of Massachusetts Central Office..... | 703 | 745 | 694 | 913 | 890 | 959 | 975 | 996 | 1,070 | 1,108 | 1,149 |
| 22 | American University..... | 690 | 635 | 648 | 620 | 690 | 765 | 846 | 1,052 | 1,186 | 1,230 | 1,143 |
| 23 | George Mason University..... | 362 | 361 | 499 | 638 | 681 | 752 | 759 | 801 | 896 | 922 | 1,142 |
| 24 | Nova Southeastern University..... | 306 | 139 | 644 | 707 | 663 | 673 | 762 | 845 | 954 | 1,127 | 1,124 |
| 25 | Stanford University..... | 717 | 707 | 762 | 865 | 919 | 892 | 949 | 1,020 | 1,039 | 1,046 | 1,119 |
| 26 | University of Texas at Austin..... | 1,045 | 1,081 | 900 | 898 | 931 | 923 | 1,047 | 1,104 | 1,156 | 1,148 | 1,101 |
| 27 | North Carolina State University at Raleigh..... | 664 | 728 | 719 | 799 | 826 | 809 | 837 | 921 | 920 | 1,045 | 1,086 |
| 28 | Michigan State University..... | 755 | 815 | 753 | 767 | 863 | 854 | 900 | 958 | 1,064 | 1,070 | 1,077 |
| 29 | Antioch University, all campuses..... | 0 | 0 | 0 | 843 | 758 | 846 | 1,108 | 1,139 | 1,105 | 1,171 | 1,070 |
| 30 | University of Pittsburgh, all campuses..... | 708 | 672 | 697 | 713 | 740 | 845 | 883 | 1,109 | 1,130 | 1,146 | 1,068 |
| 31 | Purdue University, all campuses..... | 833 | 803 | 762 | 889 | 896 | 896 | 894 | 970 | 1,051 | 1,091 | 1,066 |
| 32 | Louisiana State University, all campuses..... | 633 | 638 | 634 | 625 | 605 | 664 | 732 | 809 | 891 | 1,027 | 1,048 |
| 33 | University of Kansas, all campuses..... | 573 | 568 | 555 | 564 | 627 | 665 | 715 | 710 | 758 | 1,075 | 1,047 |
| 34 | Boston University..... | 594 | 659 | 667 | 665 | 656 | 798 | 805 | 859 | 979 | 1,032 | 1,035 |
| 35 | Virginia Polytechnic Institute and State University..... | 798 | 788 | 790 | 683 | 808 | 850 | 852 | 876 | 927 | 935 | 1,035 |
| 36 | University of North Carolina at Chapel Hill..... | 742 | 731 | 767 | 832 | 913 | 943 | 913 | 979 | 1,031 | 1,046 | 1,023 |
| 37 | University of Florida..... | 721 | 725 | 740 | 797 | 757 | 804 | 830 | 890 | 975 | 992 | 1,020 |
| 38 | Arizona State University Main..... | 529 | 505 | 565 | 672 | 690 | 792 | 844 | 989 | 983 | 983 | 1,019 |
| 39 | Massachusetts Institute of Technology..... | 769 | 774 | 761 | 807 | 867 | 956 | 972 | 977 | 1,013 | 983 | 1,007 |
| 40 | University of Arizona..... | 879 | 935 | 839 | 871 | 880 | 857 | 881 | 901 | 939 | 942 | 997 |
| 41 | University of California-Davis..... | 823 | 899 | 819 | 852 | 861 | 922 | 853 | 860 | 912 | 922 | 951 |
| 42 | SUNY at Buffalo, all campuses..... | 653 | 685 | 828 | 825 | 785 | 841 | 916 | 934 | 964 | 910 | 885 |
| 43 | Iowa State University..... | 693 | 697 | 746 | 796 | 793 | 828 | 821 | 838 | 898 | 913 | 880 |
| 44 | Wayne State University..... | 526 | 586 | 519 | 552 | 702 | 766 | 756 | 792 | 769 | 860 | 854 |
| 45 | Georgia Institute of Technology, all campuses..... | 420 | 457 | 486 | 508 | 515 | 601 | 702 | 745 | 790 | 833 | 828 |
| 46 | State University of New York at Albany..... | 430 | 417 | 420 | 430 | 459 | 505 | 534 | 843 | 892 | 852 | 828 |
| 47 | University of Connecticut, all campuses..... | 570 | 590 | 634 | 621 | 636 | 694 | 749 | 803 | 809 | 795 | 826 |
| 48 | University of Pennsylvania..... | 775 | 755 | 747 | 759 | 817 | 790 | 797 | 785 | 804 | 780 | 802 |
| 49 | University of Illinois at Chicago..... | 635 | 673 | 673 | 638 | 714 | 760 | 807 | 838 | 809 | 797 | 799 |
| 50 | University of Chicago..... | 417 | 510 | 509 | 545 | 598 | 644 | 656 | 755 | 770 | 802 | 782 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-12. Graduate science and engineering student enrollment in Historically Black Colleges and Universities, by field: 1985-1995

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 3,404 | 3,290 | 3,042 | 3,319 | 3,285 | 3,490 | 3,527 | 3,734 | 3,975 | 4,526 | 4,489 | 31.9 | 12.9 | 100.0 | 100.0 |
| Total sciences..... | 3,062 | 2,916 | 2,707 | 2,939 | 2,902 | 3,096 | 3,115 | 3,251 | 3,497 | 3,941 | 3,902 | 27.4 | 11.6 | 90.0 | 86.9 |
| Total physical sciences..... | 320 | 299 | 300 | 328 | 336 | 322 | 332 | 363 | 397 | 437 | 453 | 41.6 | 14.1 | 9.4 | 10.1 |
| Chemistry..... | 228 | 196 | 197 | 204 | 233 | 203 | 206 | 211 | 237 | 270 | 271 | 18.9 | 14.3 | 6.7 | 6.0 |
| Physics..... | 72 | 84 | 100 | 112 | 94 | 112 | 120 | 146 | 145 | 153 | 170 | 136.1 | 17.2 | 2.1 | 3.8 |
| Other physical sciences..... | 20 | 19 | 3 | 12 | 9 | 7 | 6 | 6 | 15 | 14 | 12 | -40.0 | -20.0 | 0.6 | 0.3 |
| Earth, atmospheric, and ocean sciences..... | 34 | 19 | 16 | 36 | 27 | 48 | 60 | 80 | 92 | 75 | 82 | 141.2 | -10.9 | 1.0 | 1.8 |
| Earth sciences..... | 17 | 19 | 16 | 13 | 2 | 6 | 3 | 5 | 4 | 2 | 2 | -88.2 | -50.0 | 0.5 | 0.0 |
| Oceanography..... | 0 | 0 | 0 | 23 | 25 | 37 | 41 | 41 | 37 | 36 | 35 | 100.0 | -5.4 | 0.0 | 0.8 |
| Other geosciences..... | 17 | 0 | 0 | 0 | 0 | 5 | 16 | 34 | 51 | 37 | 45 | 164.7 | -11.8 | 0.5 | 1.0 |
| Mathematics and statistics..... | 240 | 265 | 259 | 252 | 255 | 179 | 187 | 192 | 249 | 233 | 208 | -13.3 | -16.5 | 7.1 | 4.6 |
| Computer science..... | 304 | 279 | 229 | 277 | 290 | 404 | 429 | 437 | 425 | 450 | 415 | 36.5 | -2.4 | 8.9 | 9.2 |
| Agricultural sciences..... | 66 | 55 | 52 | 64 | 66 | 131 | 122 | 133 | 115 | 155 | 185 | 180.3 | 60.9 | 1.9 | 4.1 |
| Biological sciences..... | 479 | 447 | 409 | 414 | 447 | 460 | 468 | 500 | 641 | 652 | 715 | 49.3 | 11.5 | 14.1 | 15.9 |
| Psychology..... | 404 | 419 | 374 | 443 | 440 | 448 | 447 | 506 | 550 | 699 | 580 | 43.6 | 5.5 | 11.9 | 12.9 |
| Social sciences..... | 1,215 | 1,133 | 1,068 | 1,125 | 1,041 | 1,104 | 1,070 | 1,040 | 1,028 | 1,240 | 1,264 | 4.0 | 23.0 | 35.7 | 28.2 |
| Economics..... | 224 | 206 | 169 | 180 | 148 | 125 | 102 | 138 | 125 | 120 | 101 | -54.9 | -19.2 | 6.6 | 2.2 |
| Political science and public administration..... | 345 | 389 | 367 | 399 | 335 | 376 | 407 | 454 | 447 | 611 | 673 | 95.1 | 50.6 | 10.1 | 15.0 |
| Sociology..... | 306 | 239 | 257 | 243 | 238 | 272 | 238 | 262 | 271 | 324 | 326 | 6.5 | 20.3 | 9.0 | 7.3 |
| Linguistics..... | 129 | 129 | 144 | 136 | 137 | 134 | 142 | 0 | 0 | 0 | 0 | -100.0 | 0.0 | 3.8 | 0.0 |
| Other social sciences..... | 211 | 170 | 131 | 167 | 183 | 197 | 181 | 186 | 185 | 185 | 164 | -22.3 | -11.4 | 6.2 | 3.7 |
| Engineering..... | 342 | 374 | 335 | 380 | 383 | 394 | 412 | 483 | 478 | 585 | 587 | 71.6 | 22.8 | 10.0 | 13.1 |
| Chemical engineering..... | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 28 | 28 | 27 | 33 | 100.0 | 17.9 | 0.0 | 0.7 |
| Civil engineering..... | 46 | 47 | 52 | 57 | 72 | 60 | 75 | 87 | 101 | 97 | 104 | 126.1 | 3.0 | 1.4 | 2.3 |
| Electrical engineering..... | 121 | 61 | 129 | 111 | 129 | 132 | 132 | 164 | 157 | 190 | 155 | 28.1 | -1.3 | 3.6 | 3.5 |
| Mechanical engineering..... | 81 | 63 | 65 | 102 | 72 | 100 | 94 | 106 | 99 | 113 | 121 | 49.4 | 22.2 | 2.4 | 2.7 |
| Industrial engineering..... | 20 | 0 | 10 | 26 | 26 | 28 | 34 | 40 | 39 | 64 | 55 | 175.0 | 41.0 | 0.6 | 1.2 |
| Other engineering..... | 74 | 203 | 79 | 84 | 84 | 74 | 61 | 58 | 54 | 94 | 119 | 60.8 | 120.4 | 2.2 | 2.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-13. Female graduate science and engineering students attending Historically Black Colleges and Universities, by field: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 1,316 | 1,273 | 1,114 | 1,277 | 1,344 | 1,505 | 1,546 | 1,585 | 1,839 | 2,173 | 2,206 | 67.6 | 20.0 | 100.0 | 100.0 |
| Total sciences..... | 1,279 | 1,214 | 1,061 | 1,216 | 1,285 | 1,418 | 1,461 | 1,484 | 1,739 | 2,045 | 2,060 | 61.1 | 18.5 | 97.2 | 93.4 |
| Total physical sciences..... | 113 | 85 | 84 | 93 | 105 | 106 | 109 | 119 | 155 | 165 | 171 | 51.3 | 10.3 | 8.6 | 7.8 |
| Chemistry..... | 93 | 60 | 69 | 69 | 84 | 81 | 80 | 85 | 113 | 130 | 123 | 32.3 | 8.8 | 7.1 | 5.6 |
| Physics..... | 8 | 13 | 14 | 18 | 14 | 20 | 24 | 29 | 33 | 29 | 42 | 425.0 | 27.3 | 0.6 | 1.9 |
| Other physical sciences..... | 12 | 12 | 1 | 6 | 7 | 5 | 5 | 5 | 9 | 6 | 6 | -50.0 | -33.3 | 0.9 | 0.3 |
| Earth, atmospheric, and ocean sciences..... | 7 | 9 | 5 | 17 | 12 | 22 | 25 | 33 | 39 | 41 | 47 | 571.4 | 20.5 | 0.5 | 2.1 |
| Earth sciences..... | 5 | 9 | 5 | 4 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | -60.0 | 0.0 | 0.4 | 0.1 |
| Oceanography..... | 0 | 0 | 0 | 13 | 12 | 17 | 18 | 19 | 16 | 18 | 21 | 100.0 | 31.3 | 0.0 | 1.0 |
| Other geosciences..... | 2 | 0 | 0 | 0 | 0 | 3 | 5 | 12 | 21 | 21 | 24 | 1,100.0 | 14.3 | 0.2 | 1.1 |
| Mathematics and statistics..... | 100 | 105 | 81 | 84 | 92 | 70 | 70 | 71 | 122 | 116 | 84 | -16.0 | -31.1 | 7.6 | 3.8 |
| Computer science..... | 84 | 83 | 58 | 96 | 107 | 154 | 150 | 149 | 152 | 153 | 176 | 109.5 | 15.8 | 6.4 | 8.0 |
| Agricultural sciences..... | 15 | 9 | 8 | 8 | 9 | 27 | 31 | 33 | 60 | 81 | 93 | 520.0 | 55.0 | 1.1 | 4.2 |
| Biological sciences..... | 257 | 222 | 200 | 201 | 240 | 240 | 237 | 263 | 335 | 361 | 414 | 61.1 | 23.6 | 19.5 | 18.8 |
| Psychology..... | 227 | 252 | 225 | 284 | 294 | 291 | 318 | 328 | 367 | 491 | 398 | 75.3 | 8.4 | 17.2 | 18.0 |
| Social Sciences..... | 476 | 449 | 400 | 433 | 426 | 508 | 521 | 488 | 509 | 637 | 677 | 42.2 | 33.0 | 36.2 | 30.7 |
| Economics..... | 38 | 37 | 33 | 32 | 32 | 29 | 34 | 43 | 33 | 30 | 32 | -15.8 | -3.0 | 2.9 | 1.5 |
| Political science and public administration.. | 136 | 139 | 117 | 135 | 107 | 155 | 194 | 219 | 224 | 322 | 374 | 175.0 | 67.0 | 10.3 | 17.0 |
| Sociology..... | 146 | 135 | 137 | 125 | 134 | 158 | 114 | 130 | 153 | 188 | 185 | 26.7 | 20.9 | 11.1 | 8.4 |
| Linguistics..... | 86 | 86 | 69 | 66 | 83 | 81 | 86 | 0 | 0 | 0 | 0 | -100.0 | 0.0 | 6.5 | 0.0 |
| Other social sciences..... | 70 | 52 | 44 | 75 | 70 | 85 | 93 | 96 | 99 | 97 | 86 | 22.9 | -13.1 | 5.3 | 3.9 |
| Total engineering..... | 37 | 59 | 53 | 61 | 59 | 87 | 85 | 101 | 100 | 128 | 146 | 294.6 | 46.0 | 2.8 | 6.6 |
| Chemical engineering..... | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 10 | 10 | 10 | 13 | 100.0 | 30.0 | 0.0 | 0.6 |
| Civil engineering..... | 9 | 20 | 22 | 27 | 17 | 12 | 13 | 15 | 15 | 20 | 25 | 177.8 | 66.7 | 0.7 | 1.1 |
| Electrical engineering..... | 12 | 11 | 17 | 12 | 16 | 39 | 28 | 31 | 31 | 32 | 35 | 191.7 | 12.9 | 0.9 | 1.6 |
| Mechanical engineering..... | 7 | 3 | 6 | 9 | 6 | 11 | 14 | 9 | 11 | 19 | 21 | 200.0 | 90.9 | 0.5 | 1.0 |
| Industrial engineering..... | 7 | 0 | 2 | 5 | 9 | 15 | 14 | 24 | 17 | 23 | 23 | 228.6 | 35.3 | 0.5 | 1.0 |
| Other engineering..... | 2 | 25 | 6 | 8 | 11 | 10 | 10 | 12 | 16 | 24 | 29 | 1,350.0 | 81.3 | 0.2 | 1.3 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-14. U.S. citizen and permanent resident graduate students in science and engineering, by field for all races and ethnicities: 1985-1995

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total science and engineering..... | 281,314 | 284,144 | 284,565 | 281,672 | 284,686 | 294,339 | 304,073 | 321,281 | 330,447 | 329,391 | 325,135 | 15.6 | -1.6 | 100.0 | 100.0 |
| Total sciences..... | 214,145 | 214,215 | 213,989 | 214,069 | 217,340 | 224,913 | 231,840 | 244,686 | 252,833 | 253,326 | 253,093 | 18.2 | 0.1 | 76.1 | 77.8 |
| Total physical sciences..... | 22,040 | 22,218 | 22,099 | 21,890 | 21,843 | 21,609 | 21,985 | 22,543 | 23,066 | 22,742 | 22,028 | -0.1 | -4.5 | 7.8 | 6.8 |
| Astronomy..... | 517 | 526 | 537 | 565 | 625 | 618 | 612 | 644 | 663 | 711 | 680 | 31.5 | 2.6 | 0.2 | 0.2 |
| Chemistry..... | 13,934 | 13,902 | 13,528 | 12,920 | 12,721 | 12,475 | 12,509 | 13,022 | 13,456 | 13,385 | 13,181 | -5.4 | -2.0 | 5.0 | 4.1 |
| Physics..... | 7,278 | 7,447 | 7,692 | 8,107 | 8,188 | 8,221 | 8,511 | 8,495 | 8,557 | 8,217 | 7,764 | 6.7 | -9.3 | 2.6 | 2.4 |
| Other physical sciences..... | 311 | 343 | 342 | 298 | 309 | 295 | 353 | 382 | 390 | 429 | 403 | 29.6 | 3.3 | 0.1 | 0.1 |
| Total earth sciences..... | 13,554 | 12,996 | 12,181 | 11,459 | 11,068 | 11,309 | 11,583 | 12,343 | 12,795 | 12,776 | 12,866 | -5.1 | 0.6 | 4.8 | 4.0 |
| Atmospheric science..... | 755 | 748 | 713 | 693 | 663 | 648 | 658 | 765 | 815 | 844 | 806 | 6.8 | -1.1 | 0.3 | 0.2 |
| Earth sciences..... | 9,268 | 8,695 | 7,785 | 7,147 | 6,648 | 6,211 | 6,032 | 6,076 | 6,113 | 5,991 | 6,059 | -34.6 | -0.9 | 3.3 | 1.9 |
| Oceanography..... | 1,736 | 1,704 | 1,723 | 1,568 | 1,644 | 1,776 | 1,777 | 1,937 | 2,022 | 2,132 | 2,082 | 19.9 | 3.0 | 0.6 | 0.6 |
| Other geosciences..... | 1,795 | 1,849 | 1,960 | 2,051 | 2,113 | 2,674 | 3,116 | 3,565 | 3,845 | 3,809 | 3,919 | 118.3 | 1.9 | 0.6 | 1.2 |
| Mathematics and statistics..... | 12,218 | 12,139 | 12,379 | 12,652 | 12,564 | 13,210 | 13,318 | 13,878 | 13,866 | 13,496 | 12,688 | 3.8 | -8.5 | 4.3 | 3.9 |
| Computer science..... | 22,272 | 23,291 | 23,274 | 23,243 | 22,788 | 23,351 | 22,988 | 24,165 | 24,344 | 23,200 | 22,796 | 2.4 | -6.4 | 7.9 | 7.0 |
| Agricultural sciences..... | 8,905 | 8,665 | 8,204 | 8,206 | 8,251 | 8,133 | 8,298 | 8,649 | 8,778 | 9,060 | 9,304 | 4.5 | 6.0 | 3.2 | 2.9 |
| Biological sciences..... | 39,245 | 38,967 | 38,069 | 37,876 | 38,080 | 38,470 | 39,282 | 41,358 | 43,525 | 45,274 | 46,455 | 18.4 | 6.7 | 14.0 | 14.3 |
| Psychology..... | 39,229 | 39,739 | 41,073 | 42,316 | 43,897 | 46,350 | 49,355 | 51,638 | 52,771 | 52,363 | 52,126 | 32.9 | -1.2 | 13.9 | 16.0 |
| Social sciences..... | 56,682 | 56,200 | 56,710 | 56,427 | 58,849 | 62,481 | 65,031 | 70,112 | 73,688 | 74,415 | 74,830 | 32.0 | 1.5 | 20.1 | 23.0 |
| Economics..... | 9,234 | 8,879 | 8,493 | 8,207 | 8,182 | 8,252 | 8,589 | 9,040 | 9,204 | 8,949 | 8,617 | -6.7 | -6.4 | 3.3 | 2.7 |
| Political science and public administration..... | 23,446 | 23,455 | 23,712 | 24,003 | 25,648 | 27,095 | 28,099 | 30,259 | 31,614 | 30,965 | 30,983 | 32.1 | -2.0 | 8.3 | 9.5 |
| Sociology..... | 6,044 | 5,970 | 6,267 | 6,266 | 6,589 | 7,145 | 7,570 | 8,339 | 8,809 | 9,055 | 9,212 | 52.4 | 4.6 | 2.1 | 2.8 |
| Anthropology..... | 5,090 | 5,173 | 5,173 | 5,215 | 5,365 | 5,688 | 5,907 | 6,309 | 6,561 | 6,878 | 6,994 | 37.4 | 6.6 | 1.8 | 2.2 |
| Linguistics..... | 1,983 | 2,016 | 2,179 | 2,102 | 2,109 | 2,167 | 2,166 | 2,180 | 2,260 | 2,267 | 2,197 | 10.8 | -2.8 | 0.7 | 0.7 |
| History of science..... | 217 | 224 | 251 | 242 | 264 | 287 | 286 | 300 | 314 | 331 | 350 | 61.3 | 11.5 | 0.1 | 0.1 |
| Other social sciences..... | 10,668 | 10,483 | 10,635 | 10,392 | 10,692 | 11,847 | 12,414 | 13,685 | 14,926 | 15,970 | 16,477 | 54.5 | 10.4 | 3.8 | 5.1 |
| Total engineering..... | 67,169 | 69,929 | 70,576 | 67,603 | 67,346 | 69,426 | 72,233 | 76,595 | 77,614 | 76,065 | 72,042 | 7.3 | -7.2 | 23.9 | 22.2 |
| Aeronautical engineering..... | 1,729 | 1,932 | 2,144 | 2,113 | 2,431 | 2,703 | 2,892 | 2,854 | 2,739 | 2,476 | 2,157 | 24.8 | -21.2 | 0.6 | 0.7 |
| Chemical engineering..... | 4,729 | 4,640 | 4,625 | 4,071 | 3,662 | 3,791 | 3,939 | 4,122 | 4,348 | 4,595 | 4,482 | -5.2 | 3.1 | 1.7 | 1.4 |
| Civil engineering..... | 9,515 | 9,286 | 9,095 | 9,000 | 9,074 | 9,628 | 10,854 | 12,734 | 13,299 | 13,991 | 13,618 | 43.1 | 2.4 | 3.4 | 4.2 |
| Electrical engineering..... | 19,760 | 20,425 | 21,282 | 21,670 | 22,109 | 22,127 | 22,366 | 23,627 | 22,897 | 21,644 | 19,752 | 0.0 | -13.7 | 7.0 | 6.1 |
| Mechanical engineering..... | 9,370 | 10,329 | 10,855 | 10,131 | 10,450 | 10,799 | 11,056 | 11,875 | 12,199 | 11,923 | 10,918 | 16.5 | -10.5 | 3.3 | 3.4 |
| Materials engineering..... | 2,574 | 2,600 | 2,673 | 2,557 | 2,653 | 2,826 | 2,992 | 3,301 | 3,201 | 3,225 | 2,987 | 16.0 | -6.7 | 0.9 | 0.9 |
| Industrial engineering..... | 8,552 | 9,364 | 9,607 | 8,710 | 8,176 | 8,129 | 8,902 | 9,682 | 10,153 | 10,120 | 9,865 | 15.4 | -2.8 | 3.0 | 3.0 |
| Other engineering..... | 10,940 | 11,353 | 10,295 | 9,351 | 8,791 | 9,423 | 9,232 | 8,400 | 8,778 | 8,091 | 8,263 | -24.5 | -5.9 | 3.9 | 2.5 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-15. Black graduate students in science and engineering, by field: 1985-1995 (U.S. citizens and permanent residents only)

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Page 1 of 1 | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------------|-----------|
| | | | | | | | | | | | | Percent change 1985-1995 | 1993-1995 |
| Total science and engineering..... | 10,453 | 10,460 | 10,426 | 11,191 | 11,775 | 12,774 | 13,691 | 15,449 | 17,147 | 17,665 | 18,366 | 75.7 | 7.1 |
| Total sciences..... | 9,066 | 9,008 | 9,010 | 9,691 | 10,159 | 10,988 | 11,666 | 13,075 | 14,588 | 14,882 | 15,494 | 70.9 | 6.2 |
| Total physical sciences..... | 535 | 524 | 536 | 569 | 633 | 654 | 699 | 807 | 843 | 856 | 894 | 67.1 | 6.0 |
| Astronomy..... | 6 | 5 | 6 | 6 | 6 | 8 | 11 | 10 | 12 | 8 | 11 | 83.3 | -8.3 |
| Chemistry..... | 381 | 356 | 374 | 372 | 440 | 452 | 477 | 566 | 594 | 596 | 621 | 63.0 | 4.5 |
| Physics..... | 121 | 125 | 136 | 171 | 173 | 177 | 189 | 211 | 211 | 242 | 248 | 105.0 | 17.5 |
| Other physical sciences..... | 27 | 38 | 20 | 20 | 14 | 17 | 22 | 20 | 26 | 10 | 14 | -48.1 | -46.2 |
| Total earth sciences..... | 127 | 98 | 93 | 107 | 95 | 123 | 141 | 202 | 227 | 203 | 220 | 73.2 | -3.1 |
| Atmospheric science..... | 7 | 5 | 2 | 7 | 7 | 9 | 6 | 13 | 13 | 12 | 18 | 157.1 | 38.5 |
| Earth sciences..... | 70 | 46 | 49 | 50 | 43 | 51 | 55 | 73 | 67 | 57 | 67 | -4.3 | 0.0 |
| Oceanography..... | 18 | 18 | 14 | 19 | 21 | 21 | 24 | 28 | 29 | 40 | 34 | 88.9 | 17.2 |
| Other geosciences..... | 32 | 29 | 28 | 31 | 24 | 42 | 56 | 88 | 118 | 94 | 101 | 215.6 | -14.4 |
| Mathematics and statistics..... | 409 | 449 | 441 | 422 | 463 | 511 | 524 | 579 | 710 | 672 | 690 | 68.7 | -2.8 |
| Computer science..... | 622 | 702 | 769 | 839 | 848 | 985 | 1,093 | 1,108 | 1,193 | 1,216 | 1,189 | 91.2 | -0.3 |
| Agricultural sciences..... | 137 | 120 | 133 | 143 | 153 | 158 | 145 | 209 | 235 | 239 | 293 | 113.9 | 24.7 |
| Biological sciences..... | 1,183 | 1,103 | 1,055 | 1,153 | 1,212 | 1,249 | 1,317 | 1,493 | 1,737 | 1,709 | 1,879 | 58.8 | 8.2 |
| Psychology..... | 1,790 | 1,786 | 1,794 | 1,945 | 2,061 | 2,226 | 2,455 | 2,762 | 3,288 | 3,545 | 3,422 | 91.2 | 4.1 |
| Social sciences..... | 4,263 | 4,226 | 4,189 | 4,513 | 4,694 | 5,082 | 5,292 | 5,915 | 6,355 | 6,442 | 6,907 | 62.0 | 8.7 |
| Economics..... | 392 | 392 | 379 | 368 | 359 | 368 | 365 | 453 | 482 | 447 | 466 | 18.9 | -3.3 |
| Political science and public administration..... | 2,143 | 2,245 | 2,133 | 2,365 | 2,500 | 2,715 | 2,831 | 3,193 | 3,258 | 3,234 | 3,559 | 66.1 | 9.2 |
| Sociology..... | 580 | 514 | 557 | 587 | 598 | 693 | 752 | 869 | 985 | 1,057 | 1,095 | 88.8 | 11.2 |
| Anthropology..... | 95 | 95 | 101 | 106 | 116 | 128 | 132 | 174 | 176 | 209 | 215 | 126.3 | 22.2 |
| Linguistics..... | 119 | 123 | 142 | 146 | 151 | 143 | 145 | 46 | 63 | 59 | 51 | -57.1 | -19.0 |
| History of science..... | 2 | 4 | 5 | 3 | 3 | 5 | 5 | 6 | 4 | 7 | 8 | 300.0 | 100.0 |
| Other social sciences..... | 932 | 853 | 872 | 938 | 967 | 1,030 | 1,062 | 1,174 | 1,387 | 1,429 | 1,513 | 62.3 | 9.1 |
| Total engineering..... | 1,387 | 1,452 | 1,416 | 1,500 | 1,616 | 1,786 | 2,025 | 2,374 | 2,559 | 2,783 | 2,872 | 107.1 | 12.2 |
| Aeronautical engineering..... | 24 | 25 | 25 | 24 | 27 | 38 | 44 | 47 | 56 | 61 | 51 | 112.5 | -8.9 |
| Chemical engineering..... | 71 | 85 | 87 | 84 | 79 | 84 | 119 | 144 | 159 | 157 | 174 | 145.1 | 9.4 |
| Civil engineering..... | 182 | 172 | 160 | 189 | 244 | 232 | 279 | 343 | 393 | 423 | 474 | 160.4 | 20.6 |
| Electrical engineering..... | 455 | 390 | 422 | 514 | 564 | 612 | 669 | 771 | 863 | 861 | 831 | 82.6 | -3.7 |
| Mechanical engineering..... | 161 | 161 | 187 | 200 | 200 | 247 | 246 | 320 | 336 | 398 | 403 | 150.3 | 19.9 |
| Materials engineering..... | 33 | 32 | 23 | 26 | 36 | 55 | 55 | 61 | 72 | 88 | 86 | 160.6 | 19.4 |
| Industrial engineering..... | 233 | 270 | 270 | 267 | 253 | 294 | 384 | 444 | 440 | 507 | 525 | 125.3 | 19.3 |
| Other engineering..... | 228 | 317 | 242 | 196 | 213 | 224 | 229 | 244 | 240 | 288 | 328 | 43.9 | 36.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Appendix table 4-16. American Indian or Alaskan Native graduate students in science and engineering, by field: 1985-1995 (U.S. citizens and permanent residents only)

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Page 1 of 1 | |
|--|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-----------------------------|-----------|
| | | | | | | | | | | | | Percent change 1985-1995 | 1993-1995 |
| Total science and engineering..... | 737 | 743 | 782 | 918 | 860 | 1,054 | 1,120 | 1,244 | 1,312 | 1,383 | 1,524 | 106.8 | 16.2 |
| Total sciences..... | 615 | 613 | 659 | 775 | 738 | 902 | 935 | 1,067 | 1,101 | 1,141 | 1,293 | 110.2 | 17.4 |
| Total physical sciences..... | 35 | 48 | 46 | 52 | 44 | 63 | 62 | 67 | 81 | 67 | 78 | 122.9 | -3.7 |
| Astronomy..... | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 4 | 3 | 3 | 3 | 200.0 | 0.0 |
| Chemistry..... | 25 | 33 | 29 | 30 | 25 | 44 | 43 | 37 | 54 | 46 | 45 | 80.0 | -16.7 |
| Physics..... | 9 | 13 | 16 | 20 | 19 | 16 | 15 | 26 | 22 | 16 | 30 | 233.3 | 36.4 |
| Other physical sciences..... | 0 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 2 | 2 | 0 | 0.0 | -100.0 |
| Total earth sciences..... | 23 | 19 | 18 | 27 | 26 | 30 | 29 | 35 | 46 | 49 | 53 | 130.4 | 15.2 |
| Atmospheric science..... | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 4 | N/A | 100.0 |
| Earth sciences..... | 17 | 14 | 16 | 24 | 19 | 22 | 20 | 25 | 27 | 29 | 27 | 58.8 | 0.0 |
| Oceanography..... | 2 | 2 | 1 | 0 | 0 | 1 | 3 | 4 | 3 | 6 | 8 | 300.0 | 166.7 |
| Other geosciences..... | 4 | 2 | 1 | 3 | 7 | 7 | 6 | 6 | 14 | 11 | 14 | 250.0 | 0.0 |
| Mathematics and statistics..... | 22 | 31 | 48 | 32 | 34 | 20 | 20 | 27 | 32 | 36 | 70 | 218.2 | 118.8 |
| Computer science..... | 57 | 21 | 28 | 39 | 40 | 44 | 42 | 72 | 68 | 43 | 55 | -3.5 | -19.1 |
| Agricultural sciences..... | 22 | 24 | 29 | 33 | 25 | 20 | 31 | 39 | 34 | 37 | 58 | 163.6 | 70.6 |
| Biological sciences..... | 88 | 105 | 90 | 104 | 85 | 142 | 129 | 141 | 157 | 183 | 214 | 143.2 | 36.3 |
| Psychology..... | 135 | 134 | 152 | 177 | 180 | 235 | 252 | 291 | 290 | 317 | 331 | 145.2 | 14.1 |
| Social sciences..... | 233 | 231 | 248 | 311 | 304 | 348 | 370 | 395 | 393 | 409 | 434 | 86.3 | 10.4 |
| Economics..... | 17 | 28 | 19 | 85 | 70 | 68 | 57 | 35 | 23 | 24 | 26 | 52.9 | 13.0 |
| Political science and public administration..... | 108 | 89 | 98 | 96 | 91 | 100 | 114 | 126 | 141 | 145 | 137 | 26.9 | -2.8 |
| Sociology..... | 34 | 29 | 38 | 30 | 37 | 50 | 55 | 64 | 62 | 62 | 58 | 70.6 | -6.5 |
| Anthropology..... | 21 | 27 | 36 | 45 | 53 | 66 | 68 | 74 | 79 | 89 | 103 | 390.5 | 30.4 |
| Linguistics..... | 8 | 9 | 13 | 6 | 10 | 8 | 7 | 3 | 3 | 7 | 9 | 12.5 | 200.0 |
| History of science..... | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | N/A | N/A |
| Other social sciences..... | 45 | 49 | 44 | 49 | 43 | 55 | 69 | 92 | 85 | 81 | 100 | 122.2 | 17.6 |
| Total engineering..... | 122 | 130 | 123 | 143 | 122 | 152 | 185 | 177 | 211 | 242 | 231 | 89.3 | 9.5 |
| Aeronautical engineering..... | 2 | 8 | 5 | 3 | 5 | 6 | 5 | 6 | 8 | 6 | 8 | 300.0 | 0.0 |
| Chemical engineering..... | 8 | 5 | 26 | 24 | 10 | 5 | 22 | 15 | 14 | 18 | 21 | 162.5 | 50.0 |
| Civil engineering..... | 16 | 28 | 9 | 22 | 22 | 37 | 34 | 31 | 43 | 38 | 42 | 162.5 | -2.3 |
| Electrical engineering..... | 30 | 43 | 18 | 39 | 37 | 49 | 39 | 38 | 45 | 53 | 52 | 73.3 | 15.6 |
| Mechanical engineering..... | 25 | 15 | 23 | 12 | 13 | 15 | 21 | 24 | 30 | 54 | 44 | 76.0 | 46.7 |
| Materials engineering..... | 6 | 3 | 2 | 4 | 5 | 2 | 1 | 4 | 4 | 6 | 8 | 33.3 | 100.0 |
| Industrial engineering..... | 11 | 10 | 24 | 14 | 15 | 23 | 39 | 42 | 36 | 23 | 23 | 109.1 | -36.1 |
| Other engineering..... | 24 | 18 | 16 | 25 | 15 | 15 | 24 | 17 | 31 | 44 | 33 | 37.5 | 6.5 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-17. Hispanic graduate students in science and engineering, by field: 1985-1995 (U.S. citizens and permanent residents only)

| Academic discipline | Page 1 of 1 | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|----------------|--------|--------|--------|--------|--------|-----------|-----------|
| | | | | | | Percent change | | | | | | | |
| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1985-1995 | 1993-1995 |
| Total science and engineering..... | 8,614 | 8,658 | 8,823 | 9,098 | 9,436 | 10,159 | 11,045 | 12,248 | 13,386 | 13,284 | 14,089 | 63.6 | 5.3 |
| Total sciences..... | 7,133 | 7,056 | 7,093 | 7,379 | 7,729 | 8,273 | 8,921 | 9,785 | 10,692 | 10,427 | 11,258 | 57.8 | 5.3 |
| Total physical sciences..... | 599 | 629 | 591 | 624 | 680 | 642 | 649 | 680 | 747 | 675 | 732 | 22.2 | -2.0 |
| Astronomy..... | 7 | 7 | 8 | 6 | 13 | 7 | 11 | 11 | 13 | 16 | 16 | 128.6 | 23.1 |
| Chemistry..... | 438 | 463 | 419 | 438 | 464 | 426 | 398 | 428 | 472 | 442 | 486 | 11.0 | 3.0 |
| Physics..... | 151 | 153 | 159 | 178 | 195 | 203 | 233 | 229 | 252 | 211 | 219 | 45.0 | -13.1 |
| Other physical sciences..... | 3 | 6 | 5 | 2 | 8 | 6 | 7 | 12 | 10 | 6 | 11 | 266.7 | 10.0 |
| Total earth sciences..... | 238 | 237 | 227 | 210 | 209 | 241 | 250 | 308 | 371 | 344 | 369 | 55.0 | -0.5 |
| Atmospheric science..... | 11 | 13 | 10 | 9 | 8 | 9 | 24 | 11 | 15 | 14 | 10 | -9.1 | -33.3 |
| Earth sciences..... | 105 | 98 | 99 | 112 | 110 | 130 | 116 | 141 | 160 | 140 | 154 | 46.7 | -3.8 |
| Oceanography..... | 98 | 101 | 90 | 68 | 68 | 61 | 59 | 65 | 102 | 88 | 97 | -1.0 | -4.9 |
| Other geosciences..... | 24 | 25 | 28 | 21 | 23 | 41 | 51 | 91 | 94 | 102 | 108 | 350.0 | 14.9 |
| Mathematics and statistics..... | 262 | 270 | 266 | 328 | 305 | 351 | 349 | 376 | 415 | 369 | 400 | 52.7 | -3.6 |
| Computer science..... | 488 | 453 | 551 | 516 | 542 | 565 | 631 | 706 | 699 | 637 | 660 | 35.2 | -5.6 |
| Agricultural sciences..... | 321 | 302 | 221 | 278 | 297 | 272 | 279 | 279 | 308 | 263 | 289 | -10.0 | -6.2 |
| Biological sciences..... | 935 | 950 | 1,032 | 1,116 | 1,200 | 1,220 | 1,374 | 1,459 | 1,649 | 1,651 | 1,810 | 93.6 | 9.8 |
| Psychology..... | 1,611 | 1,707 | 1,665 | 1,722 | 1,751 | 2,160 | 2,365 | 2,373 | 2,564 | 2,488 | 2,777 | 72.4 | 8.3 |
| Social sciences..... | 2,679 | 2,508 | 2,540 | 2,585 | 2,745 | 2,822 | 3,024 | 3,604 | 3,939 | 4,000 | 4,221 | 57.6 | 7.2 |
| Economics..... | 315 | 309 | 292 | 321 | 305 | 279 | 336 | 382 | 391 | 404 | 420 | 33.3 | 7.4 |
| Political science and public administration... | 1,445 | 1,405 | 1,254 | 1,330 | 1,390 | 1,361 | 1,453 | 1,776 | 1,902 | 1,789 | 1,926 | 33.3 | 1.3 |
| Sociology..... | 231 | 187 | 249 | 245 | 276 | 316 | 353 | 408 | 485 | 494 | 532 | 130.3 | 9.7 |
| Anthropology..... | 151 | 136 | 152 | 150 | 162 | 173 | 207 | 222 | 248 | 295 | 343 | 127.2 | 38.3 |
| Linguistics..... | 68 | 68 | 93 | 113 | 128 | 136 | 132 | 168 | 165 | 158 | 138 | 102.9 | -16.4 |
| History of science..... | 2 | 1 | 3 | 5 | 3 | 4 | 4 | 3 | 3 | 5 | 4 | 100.0 | 33.3 |
| Other social sciences..... | 467 | 402 | 497 | 421 | 481 | 553 | 539 | 645 | 745 | 855 | 858 | 83.7 | 15.2 |
| Total engineering..... | 1,481 | 1,602 | 1,730 | 1,719 | 1,707 | 1,886 | 2,124 | 2,463 | 2,694 | 2,857 | 2,831 | 91.2 | 5.1 |
| Aeronautical engineering..... | 33 | 24 | 37 | 45 | 49 | 51 | 54 | 72 | 70 | 75 | 65 | 97.0 | -7.1 |
| Chemical engineering..... | 107 | 116 | 117 | 135 | 111 | 143 | 159 | 176 | 180 | 171 | 202 | 88.8 | 12.2 |
| Civil engineering..... | 251 | 252 | 263 | 263 | 275 | 302 | 383 | 478 | 550 | 549 | 590 | 135.1 | 7.3 |
| Electrical engineering..... | 443 | 464 | 521 | 528 | 558 | 576 | 661 | 748 | 841 | 853 | 794 | 79.2 | -5.6 |
| Mechanical engineering..... | 181 | 243 | 282 | 217 | 214 | 282 | 338 | 394 | 382 | 451 | 420 | 132.0 | 9.9 |
| Materials engineering..... | 37 | 44 | 48 | 48 | 53 | 71 | 56 | 73 | 76 | 122 | 102 | 175.7 | 34.2 |
| Industrial engineering..... | 253 | 275 | 281 | 280 | 241 | 231 | 253 | 297 | 332 | 375 | 392 | 54.9 | 18.1 |
| Other engineering..... | 176 | 184 | 181 | 203 | 206 | 230 | 220 | 225 | 263 | 261 | 266 | 51.1 | 1.1 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-18. Asian or Pacific Islander graduate students in science and engineering, by field: 1985-1995 (U.S. citizens and permanent residents only)

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|-----------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 |
| Total science and engineering..... | 12,003 | 12,775 | 14,565 | 15,188 | 15,693 | 17,156 | 18,139 | 21,762 | 24,149 | 26,457 | 26,015 | 116.7 | 7.7 |
| Total sciences..... | 7,198 | 7,661 | 8,716 | 9,278 | 9,682 | 10,469 | 11,023 | 13,270 | 15,150 | 16,656 | 16,897 | 134.7 | 11.5 |
| Total physical sciences..... | 937 | 910 | 1,047 | 1,253 | 1,175 | 1,200 | 1,429 | 1,615 | 1,973 | 1,925 | 1,797 | 91.8 | -8.9 |
| Astronomy..... | 6 | 12 | 14 | 37 | 36 | 38 | 30 | 25 | 24 | 35 | 30 | 400.0 | 25.0 |
| Chemistry..... | 660 | 631 | 715 | 720 | 680 | 653 | 820 | 923 | 1,186 | 1,174 | 1,121 | 69.8 | -5.5 |
| Physics..... | 265 | 259 | 304 | 481 | 452 | 501 | 557 | 640 | 732 | 683 | 629 | 137.4 | -14.1 |
| Other physical sciences..... | 6 | 8 | 14 | 15 | 7 | 8 | 22 | 27 | 31 | 33 | 17 | 183.3 | -45.2 |
| Total earth sciences..... | 194 | 153 | 179 | 209 | 207 | 258 | 267 | 383 | 469 | 454 | 423 | 118.0 | -9.8 |
| Atmospheric science..... | 25 | 27 | 37 | 47 | 45 | 26 | 28 | 51 | 55 | 66 | 69 | 176.0 | 25.5 |
| Earth sciences..... | 110 | 67 | 69 | 82 | 96 | 116 | 137 | 162 | 217 | 180 | 151 | 37.3 | -30.4 |
| Oceanography..... | 27 | 32 | 43 | 48 | 30 | 43 | 36 | 70 | 66 | 74 | 83 | 207.4 | 25.8 |
| Other geosciences..... | 32 | 27 | 30 | 32 | 36 | 73 | 66 | 100 | 131 | 134 | 120 | 275.0 | -8.4 |
| Mathematics and statistics..... | 623 | 706 | 769 | 756 | 703 | 822 | 866 | 963 | 1,020 | 1,199 | 1,124 | 80.4 | 10.2 |
| Computer science..... | 1,868 | 2,064 | 2,466 | 2,682 | 2,727 | 2,888 | 2,858 | 3,400 | 3,572 | 4,103 | 4,103 | 119.6 | 14.9 |
| Agricultural sciences..... | 138 | 135 | 169 | 217 | 236 | 242 | 225 | 215 | 264 | 276 | 273 | 97.8 | 3.4 |
| Biological sciences..... | 1,446 | 1,564 | 1,650 | 1,799 | 1,986 | 2,228 | 2,346 | 2,822 | 3,456 | 3,913 | 4,247 | 193.7 | 22.9 |
| Psychology..... | 559 | 619 | 727 | 747 | 817 | 962 | 1,040 | 1,284 | 1,476 | 1,586 | 1,596 | 185.5 | 8.1 |
| Social sciences..... | 1,433 | 1,510 | 1,709 | 1,615 | 1,831 | 1,869 | 1,992 | 2,588 | 2,920 | 3,200 | 3,334 | 132.7 | 14.2 |
| Economics..... | 314 | 390 | 414 | 361 | 427 | 445 | 424 | 563 | 639 | 666 | 643 | 104.8 | 0.6 |
| Political science and public administration.... | 676 | 595 | 651 | 595 | 710 | 714 | 810 | 960 | 1,086 | 1,091 | 1,227 | 81.5 | 13.0 |
| Sociology..... | 155 | 149 | 191 | 194 | 212 | 216 | 220 | 271 | 343 | 428 | 433 | 179.4 | 26.2 |
| Anthropology..... | 53 | 69 | 98 | 107 | 109 | 114 | 117 | 172 | 172 | 192 | 208 | 292.5 | 20.9 |
| Linguistics..... | 45 | 53 | 109 | 108 | 83 | 84 | 91 | 141 | 139 | 186 | 179 | 297.8 | 28.8 |
| History of science..... | 3 | 3 | 10 | 12 | 15 | 5 | 7 | 8 | 12 | 9 | 14 | 366.7 | 16.7 |
| Other social sciences..... | 187 | 251 | 236 | 238 | 275 | 291 | 323 | 473 | 529 | 628 | 630 | 236.9 | 19.1 |
| Total engineering..... | 4,805 | 5,114 | 5,849 | 5,910 | 6,011 | 6,687 | 7,116 | 8,492 | 8,999 | 9,801 | 9,118 | 89.8 | 1.3 |
| Aeronautical engineering..... | 84 | 101 | 109 | 125 | 143 | 152 | 196 | 181 | 224 | 223 | 177 | 110.7 | -21.0 |
| Chemical engineering..... | 277 | 287 | 348 | 302 | 235 | 316 | 399 | 379 | 461 | 521 | 461 | 66.4 | 0.0 |
| Civil engineering..... | 436 | 444 | 582 | 601 | 597 | 760 | 837 | 1,043 | 1,167 | 1,374 | 1,360 | 211.9 | 16.5 |
| Electrical engineering..... | 1,966 | 2,071 | 2,453 | 2,587 | 2,703 | 3,050 | 3,026 | 3,755 | 3,749 | 4,088 | 3,762 | 91.4 | 0.3 |
| Mechanical engineering..... | 794 | 811 | 883 | 769 | 824 | 830 | 985 | 1,179 | 1,307 | 1,410 | 1,243 | 56.5 | -4.9 |
| Materials engineering..... | 219 | 235 | 241 | 250 | 273 | 224 | 260 | 327 | 336 | 346 | 307 | 40.2 | -8.6 |
| Industrial engineering..... | 326 | 397 | 440 | 467 | 451 | 450 | 586 | 794 | 863 | 855 | 829 | 154.3 | -3.9 |
| Other engineering..... | 703 | 768 | 793 | 809 | 785 | 905 | 827 | 834 | 892 | 984 | 979 | 39.3 | 9.8 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-19. White non-Hispanic graduate students in science and engineering, by field: 1985-1995 (U.S. citizens and permanent residents only)

Page 1 of 1

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 |
| Total science and engineering..... | 223,682 | 227,547 | 228,809 | 229,037 | 229,694 | 238,492 | 243,608 | 253,516 | 257,009 | 255,976 | 246,776 | 10.3 | -4.0 |
| Total sciences..... | 173,541 | 174,621 | 175,008 | 176,708 | 178,201 | 185,285 | 188,824 | 196,120 | 199,558 | 199,945 | 194,663 | 12.2 | -2.5 |
| Total physical sciences..... | 18,324 | 18,553 | 18,087 | 18,282 | 18,318 | 18,433 | 18,402 | 18,527 | 18,582 | 18,422 | 17,506 | -4.5 | -5.8 |
| Astronomy..... | 472 | 483 | 486 | 509 | 553 | 548 | 544 | 576 | 580 | 624 | 577 | 22.2 | -0.5 |
| Chemistry..... | 11,378 | 11,351 | 10,763 | 10,597 | 10,498 | 10,523 | 10,414 | 10,592 | 10,687 | 10,656 | 10,323 | -9.3 | -3.4 |
| Physics..... | 6,227 | 6,459 | 6,561 | 6,925 | 7,003 | 7,110 | 7,164 | 7,063 | 7,005 | 6,771 | 6,250 | 0.4 | -10.8 |
| Other physical sciences..... | 247 | 260 | 277 | 251 | 264 | 252 | 280 | 296 | 310 | 371 | 356 | 44.1 | 14.8 |
| Total earth sciences..... | 11,760 | 11,587 | 10,924 | 10,415 | 10,137 | 10,375 | 10,531 | 10,893 | 11,145 | 11,351 | 11,324 | -3.7 | 1.6 |
| Atmospheric science..... | 708 | 702 | 657 | 623 | 594 | 597 | 589 | 675 | 714 | 733 | 691 | -2.4 | -3.2 |
| Earth sciences..... | 7,916 | 7,700 | 7,099 | 6,565 | 6,125 | 5,747 | 5,510 | 5,389 | 5,384 | 5,391 | 5,402 | -31.8 | 0.3 |
| Oceanography..... | 1,507 | 1,501 | 1,425 | 1,380 | 1,468 | 1,580 | 1,550 | 1,653 | 1,701 | 1,868 | 1,811 | 20.2 | 6.5 |
| Other geosciences..... | 1,629 | 1,684 | 1,743 | 1,847 | 1,950 | 2,451 | 2,882 | 3,176 | 3,346 | 3,359 | 3,420 | 109.9 | 2.2 |
| Mathematics and statistics..... | 9,787 | 9,528 | 9,650 | 10,133 | 10,064 | 10,605 | 10,457 | 10,851 | 10,572 | 10,486 | 9,630 | -1.6 | -8.9 |
| Computer science..... | 15,724 | 16,525 | 17,156 | 17,346 | 16,496 | 17,292 | 16,464 | 16,894 | 16,801 | 15,759 | 14,795 | -5.9 | -11.9 |
| Agricultural sciences..... | 7,881 | 7,785 | 7,435 | 7,315 | 7,294 | 7,251 | 7,481 | 7,679 | 7,731 | 7,972 | 8,013 | 1.7 | 3.6 |
| Biological sciences..... | 34,002 | 33,779 | 32,643 | 32,725 | 32,361 | 32,677 | 33,058 | 34,229 | 35,094 | 36,389 | 36,489 | 7.3 | 4.0 |
| Psychology..... | 32,757 | 33,166 | 34,785 | 35,920 | 37,227 | 39,247 | 40,990 | 42,500 | 42,744 | 42,191 | 40,679 | 24.2 | -4.8 |
| Social sciences..... | 43,306 | 43,698 | 44,328 | 44,572 | 46,304 | 49,405 | 51,441 | 54,547 | 56,889 | 57,375 | 56,227 | 29.8 | -1.2 |
| Economics..... | 7,166 | 7,092 | 6,674 | 6,501 | 6,527 | 6,565 | 6,832 | 7,099 | 7,173 | 7,036 | 6,682 | -6.8 | -6.8 |
| Political science and public administration..... | 16,772 | 17,189 | 18,132 | 18,624 | 19,529 | 20,848 | 21,657 | 22,991 | 24,050 | 23,348 | 22,436 | 33.8 | -6.7 |
| Sociology..... | 4,796 | 4,653 | 4,833 | 4,845 | 5,233 | 5,621 | 5,944 | 6,405 | 6,552 | 6,737 | 6,678 | 39.2 | 1.9 |
| Anthropology..... | 4,553 | 4,645 | 4,448 | 4,457 | 4,631 | 4,939 | 5,116 | 5,359 | 5,581 | 5,827 | 5,812 | 27.7 | 4.1 |
| Linguistics..... | 1,672 | 1,595 | 1,720 | 1,683 | 1,670 | 1,728 | 1,697 | 1,747 | 1,770 | 1,770 | 1,688 | 1.0 | -4.6 |
| History of science..... | 210 | 216 | 223 | 222 | 227 | 271 | 269 | 280 | 294 | 308 | 313 | 49.0 | 6.5 |
| Other social sciences..... | 8,137 | 8,308 | 8,298 | 8,240 | 8,487 | 9,433 | 9,926 | 10,666 | 11,469 | 12,349 | 12,618 | 55.1 | 10.0 |
| Total engineering..... | 50,141 | 52,926 | 53,801 | 52,329 | 51,493 | 53,207 | 54,784 | 57,396 | 57,451 | 56,031 | 52,113 | 3.9 | -9.3 |
| Aeronautical engineering..... | 1,342 | 1,520 | 1,631 | 1,751 | 2,015 | 2,241 | 2,196 | 2,245 | 2,071 | 2,024 | 1,774 | 32.2 | -14.3 |
| Chemical engineering..... | 3,865 | 3,886 | 3,827 | 3,382 | 3,097 | 3,151 | 3,140 | 3,236 | 3,388 | 3,519 | 3,418 | -11.6 | 0.9 |
| Civil engineering..... | 7,327 | 7,256 | 7,066 | 7,370 | 7,337 | 7,727 | 8,684 | 10,196 | 10,415 | 11,025 | 10,460 | 42.8 | 0.4 |
| Electrical engineering..... | 13,461 | 13,992 | 14,922 | 15,404 | 15,818 | 15,662 | 15,571 | 15,996 | 15,661 | 14,336 | 12,751 | -5.3 | -18.6 |
| Mechanical engineering..... | 7,159 | 7,864 | 7,984 | 7,841 | 7,633 | 8,238 | 8,416 | 9,035 | 9,029 | 8,890 | 8,059 | 12.6 | -10.7 |
| Materials engineering..... | 2,092 | 2,101 | 2,247 | 2,137 | 2,196 | 2,320 | 2,502 | 2,683 | 2,542 | 2,550 | 2,377 | 13.6 | -6.5 |
| Industrial engineering..... | 7,031 | 7,433 | 7,907 | 7,130 | 6,537 | 6,407 | 7,016 | 7,375 | 7,448 | 7,503 | 7,084 | 0.8 | -4.9 |
| Other engineering..... | 7,864 | 8,874 | 8,217 | 7,314 | 6,860 | 7,461 | 7,259 | 6,630 | 6,897 | 6,184 | 6,190 | -21.3 | -10.3 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-20. Graduate students in science and engineering of other or unknown races and ethnicities, by field: 1985-1995 (U.S. citizens and permanent residents only)

| Academic discipline | Page 1 of 1 | | | | | | | | | | | Percent change | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|-----------|
| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1985-1995 | 1993-1995 |
| Total science and engineering..... | 25,825 | 23,961 | 21,160 | 16,240 | 17,228 | 14,704 | 16,470 | 17,062 | 17,444 | 14,626 | 18,365 | -28.9 | 5.3 |
| Total sciences..... | 16,592 | 15,256 | 13,503 | 10,238 | 10,831 | 8,996 | 10,471 | 11,369 | 11,744 | 10,275 | 13,488 | -18.7 | 14.9 |
| Total physical sciences..... | 1,610 | 1,554 | 1,792 | 1,110 | 993 | 617 | 744 | 847 | 840 | 797 | 1,021 | -36.6 | 21.5 |
| Astronomy..... | 25 | 18 | 22 | 7 | 17 | 15 | 14 | 18 | 31 | 25 | 43 | 72.0 | 38.7 |
| Chemistry..... | 1,052 | 1,068 | 1,228 | 763 | 614 | 377 | 357 | 476 | 463 | 471 | 585 | -44.4 | 26.3 |
| Physics..... | 505 | 438 | 516 | 332 | 346 | 214 | 353 | 326 | 335 | 294 | 388 | -23.2 | 15.8 |
| Other physical sciences..... | 28 | 30 | 26 | 8 | 16 | 11 | 20 | 27 | 11 | 7 | 5 | -82.1 | -54.5 |
| Total earth sciences..... | 1,212 | 902 | 740 | 491 | 394 | 282 | 365 | 522 | 537 | 375 | 477 | -60.6 | -11.2 |
| Atmospheric science..... | 4 | 0 | 7 | 7 | 9 | 7 | 11 | 15 | 16 | 16 | 14 | 250.0 | -12.5 |
| Earth sciences..... | 1,050 | 770 | 453 | 314 | 255 | 145 | 194 | 286 | 258 | 194 | 258 | -75.4 | 0.0 |
| Oceanography..... | 84 | 50 | 150 | 53 | 57 | 70 | 105 | 117 | 121 | 56 | 49 | -41.7 | -59.5 |
| Other geosciences..... | 74 | 82 | 130 | 117 | 73 | 60 | 55 | 104 | 142 | 109 | 156 | 110.8 | 9.9 |
| Mathematics and statistics..... | 1,115 | 1,155 | 1,205 | 981 | 995 | 901 | 1,102 | 1,082 | 1,117 | 734 | 774 | -30.6 | -30.7 |
| Computer science..... | 3,513 | 3,526 | 2,304 | 1,821 | 2,135 | 1,577 | 1,900 | 1,985 | 2,011 | 1,442 | 1,994 | -43.2 | -0.8 |
| Agricultural sciences..... | 406 | 299 | 217 | 220 | 246 | 190 | 137 | 228 | 206 | 273 | 378 | -6.9 | 83.5 |
| Biological sciences..... | 1,591 | 1,466 | 1,599 | 979 | 1,236 | 954 | 1,058 | 1,214 | 1,432 | 1,429 | 1,816 | 14.1 | 26.8 |
| Psychology..... | 2,377 | 2,327 | 1,950 | 1,805 | 1,861 | 1,520 | 2,253 | 2,428 | 2,409 | 2,236 | 3,321 | 39.7 | 37.9 |
| Social sciences..... | 4,768 | 4,027 | 3,696 | 2,831 | 2,971 | 2,955 | 2,912 | 3,063 | 3,192 | 2,989 | 3,707 | -22.3 | 16.1 |
| Economics..... | 1,030 | 668 | 715 | 571 | 494 | 527 | 575 | 508 | 496 | 372 | 380 | -63.1 | -23.4 |
| Political science and public administration.. | 2,302 | 1,932 | 1,444 | 993 | 1,428 | 1,357 | 1,234 | 1,213 | 1,177 | 1,358 | 1,698 | -26.2 | 44.3 |
| Sociology..... | 248 | 438 | 399 | 365 | 233 | 249 | 246 | 322 | 382 | 277 | 416 | 67.7 | 8.9 |
| Anthropology..... | 217 | 201 | 338 | 350 | 294 | 268 | 267 | 308 | 305 | 266 | 313 | 44.2 | 2.6 |
| Linguistics..... | 71 | 168 | 102 | 46 | 67 | 68 | 94 | 75 | 120 | 87 | 132 | 85.9 | 10.0 |
| History of science..... | 0 | 0 | 10 | 0 | 16 | 1 | 1 | 2 | 1 | 1 | 10 | N/A | 900.0 |
| Other social sciences..... | 900 | 620 | 688 | 506 | 439 | 485 | 495 | 635 | 711 | 628 | 758 | -15.8 | 6.6 |
| Total engineering..... | 9,233 | 8,705 | 7,657 | 6,002 | 6,397 | 5,708 | 5,999 | 5,693 | 5,700 | 4,351 | 4,877 | -47.2 | -14.4 |
| Aeronautical engineering..... | 244 | 254 | 337 | 165 | 192 | 215 | 397 | 303 | 310 | 87 | 82 | -66.4 | -73.5 |
| Chemical engineering..... | 401 | 261 | 220 | 144 | 130 | 92 | 100 | 172 | 146 | 209 | 206 | -48.6 | 41.1 |
| Civil engineering..... | 1,303 | 1,134 | 1,015 | 555 | 599 | 570 | 637 | 643 | 731 | 582 | 692 | -46.9 | -5.3 |
| Electrical engineering..... | 3,405 | 3,465 | 2,946 | 2,598 | 2,429 | 2,178 | 2,400 | 2,319 | 1,738 | 1,453 | 1,562 | -54.1 | -10.1 |
| Mechanical engineering..... | 1,050 | 1,235 | 1,496 | 1,092 | 1,566 | 1,187 | 1,050 | 923 | 1,115 | 720 | 749 | -28.7 | -32.8 |
| Materials engineering..... | 187 | 185 | 112 | 92 | 90 | 154 | 118 | 153 | 171 | 113 | 107 | -42.8 | -37.4 |
| Industrial engineering..... | 698 | 979 | 685 | 552 | 679 | 724 | 624 | 730 | 1,034 | 857 | 1,012 | 45.0 | -2.1 |
| Other engineering..... | 1,945 | 1,192 | 846 | 804 | 712 | 588 | 673 | 450 | 455 | 330 | 467 | -76.0 | 2.6 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-21. Graduate students in science and engineering, by field, sex, and race/ethnicity: 1994 and 1995 (U.S. citizens and permanent residents only)

Page 1 of 2

| | Year | Total | White | Asian | Black | Hispanic | American | Unknown |
|---|------|---------|---------|--------|--------|----------|----------|---------|
| | | | | | | | Indian | |
| Total | | | | | | | | |
| Total science and engineering..... | 1994 | 329,391 | 255,976 | 26,457 | 17,665 | 13,284 | 1,383 | 14,626 |
| | 1995 | 325,135 | 246,776 | 26,015 | 18,366 | 14,089 | 1,524 | 18,365 |
| Physical sciences..... | 1994 | 22,742 | 18,422 | 1,925 | 856 | 675 | 67 | 797 |
| | 1995 | 22,028 | 17,506 | 1,797 | 894 | 732 | 78 | 1,021 |
| Earth, atmospheric, and ocean sciences..... | 1994 | 12,776 | 11,351 | 454 | 203 | 344 | 49 | 375 |
| | 1995 | 12,866 | 11,324 | 423 | 220 | 369 | 53 | 477 |
| Mathematics..... | 1994 | 13,496 | 10,486 | 1,199 | 672 | 369 | 36 | 734 |
| | 1995 | 12,688 | 9,630 | 1,124 | 690 | 400 | 70 | 774 |
| Computer sciences..... | 1994 | 23,200 | 15,759 | 4,103 | 1,216 | 637 | 43 | 1,442 |
| | 1995 | 22,796 | 14,795 | 4,103 | 1,189 | 660 | 55 | 1,994 |
| Agricultural sciences..... | 1994 | 9,060 | 7,972 | 276 | 239 | 263 | 37 | 273 |
| | 1995 | 9,304 | 8,013 | 273 | 293 | 289 | 58 | 378 |
| Biological sciences..... | 1994 | 45,274 | 36,389 | 3,913 | 1,709 | 1,651 | 183 | 1,429 |
| | 1995 | 46,455 | 36,489 | 4,247 | 1,879 | 1,810 | 214 | 1,816 |
| Psychology..... | 1994 | 52,363 | 42,191 | 1,586 | 3,545 | 2,488 | 317 | 2,236 |
| | 1995 | 52,126 | 40,679 | 1,596 | 3,422 | 2,777 | 331 | 3,321 |
| Social sciences..... | 1994 | 74,415 | 57,375 | 3,200 | 6,442 | 4,000 | 409 | 2,989 |
| | 1995 | 74,830 | 56,227 | 3,334 | 6,907 | 4,221 | 434 | 3,707 |
| Total engineering..... | 1994 | 76,065 | 56,031 | 9,801 | 2,783 | 2,857 | 242 | 4,351 |
| | 1995 | 72,042 | 52,113 | 9,118 | 2,872 | 2,831 | 231 | 4,877 |
| Female | | | | | | | | |
| Total science and engineering..... | 1994 | 133,420 | 102,182 | 9,319 | 9,609 | 6,109 | 691 | 5,510 |
| | 1995 | 134,643 | 100,253 | 9,554 | 10,147 | 6,726 | 774 | 7,189 |
| Physical sciences..... | 1994 | 6,190 | 4,677 | 670 | 359 | 231 | 18 | 235 |
| | 1995 | 6,059 | 4,488 | 623 | 368 | 262 | 19 | 299 |
| Earth, atmospheric, and ocean sciences..... | 1994 | 4,476 | 3,948 | 157 | 85 | 130 | 23 | 133 |
| | 1995 | 4,694 | 4,090 | 162 | 103 | 143 | 22 | 174 |
| Mathematics..... | 1994 | 4,850 | 3,669 | 471 | 331 | 133 | 12 | 234 |
| | 1995 | 4,610 | 3,419 | 450 | 306 | 157 | 27 | 251 |
| Computer sciences..... | 1994 | 5,728 | 3,287 | 1,374 | 510 | 161 | 7 | 389 |
| | 1995 | 5,606 | 3,098 | 1,356 | 526 | 162 | 15 | 449 |
| Agricultural sciences..... | 1994 | 3,445 | 2,970 | 108 | 121 | 121 | 17 | 108 |
| | 1995 | 3,581 | 3,008 | 124 | 143 | 134 | 29 | 143 |
| Biological sciences..... | 1994 | 22,581 | 17,917 | 1,921 | 1,038 | 884 | 106 | 715 |
| | 1995 | 23,331 | 18,094 | 2,117 | 1,190 | 967 | 121 | 842 |
| Psychology..... | 1994 | 36,830 | 29,426 | 1,150 | 2,691 | 1,782 | 220 | 1,561 |
| | 1995 | 36,902 | 28,493 | 1,182 | 2,589 | 2,030 | 237 | 2,371 |
| Social sciences..... | 1994 | 36,083 | 27,065 | 1,652 | 3,649 | 2,071 | 224 | 1,422 |
| | 1995 | 36,740 | 26,611 | 1,741 | 4,011 | 2,240 | 253 | 1,884 |
| Total engineering..... | 1994 | 13,237 | 9,223 | 1,816 | 825 | 596 | 64 | 713 |
| | 1995 | 13,120 | 8,952 | 1,799 | 911 | 631 | 51 | 776 |

See explanatory information and SOURCES at end of table.

Appendix table 4-21. Graduate students in science and engineering, by field, sex, and race/ethnicity: 1994 and 1995 (U.S. citizens and permanent residents only)

Page 2 of 2

| | Year | Total | White | Asian | Black | Hispanic | American Indian | Unknown |
|---|------|---------|---------|--------|-------|----------|-----------------|---------|
| | | Male | | | | | | |
| Total science and engineering..... | 1994 | 195,971 | 153,794 | 17,138 | 8,056 | 7,175 | 692 | 9,116 |
| | 1995 | 190,492 | 146,523 | 16,461 | 8,219 | 7,363 | 750 | 11,176 |
| Physical sciences..... | 1994 | 16,552 | 13,745 | 1,255 | 497 | 444 | 49 | 562 |
| | 1995 | 15,969 | 13,018 | 1,174 | 526 | 470 | 59 | 722 |
| Earth, atmospheric, and ocean sciences..... | 1994 | 8,300 | 7,403 | 297 | 118 | 214 | 26 | 242 |
| | 1995 | 8,172 | 7,234 | 261 | 117 | 226 | 31 | 303 |
| Mathematics..... | 1994 | 8,646 | 6,817 | 728 | 341 | 236 | 24 | 500 |
| | 1995 | 8,078 | 6,211 | 674 | 384 | 243 | 43 | 523 |
| Computer sciences..... | 1994 | 17,472 | 12,472 | 2,729 | 706 | 476 | 36 | 1,053 |
| | 1995 | 17,190 | 11,697 | 2,747 | 663 | 498 | 40 | 1,545 |
| Agricultural sciences..... | 1994 | 5,615 | 5,002 | 168 | 118 | 142 | 20 | 165 |
| | 1995 | 5,723 | 5,005 | 149 | 150 | 155 | 29 | 235 |
| Biological sciences..... | 1994 | 22,693 | 18,472 | 1,992 | 671 | 767 | 77 | 714 |
| | 1995 | 23,124 | 18,395 | 2,130 | 689 | 843 | 93 | 974 |
| Psychology..... | 1994 | 15,533 | 12,765 | 436 | 854 | 706 | 97 | 675 |
| | 1995 | 15,224 | 12,186 | 414 | 833 | 747 | 94 | 950 |
| Social sciences..... | 1994 | 38,332 | 30,310 | 1,548 | 2,793 | 1,929 | 185 | 1,567 |
| | 1995 | 38,090 | 29,616 | 1,593 | 2,896 | 1,981 | 181 | 1,823 |
| Total engineering..... | 1994 | 62,828 | 46,808 | 7,985 | 1,958 | 2,261 | 178 | 3,638 |
| | 1995 | 58,922 | 43,161 | 7,319 | 1,961 | 2,200 | 180 | 4,101 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-22. Graduate students with temporary visas enrolled in science and engineering, by field: 1985-1995

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | |
|--|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|----------------|-----------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 |
| Total science and engineering..... | 76,812 | 83,975 | 88,790 | 93,615 | 98,083 | 102,820 | 108,635 | 109,516 | 105,786 | 102,367 | 98,787 | 28.6 | -6.6 |
| Total sciences..... | 47,990 | 52,030 | 55,413 | 58,389 | 61,386 | 64,621 | 67,292 | 68,076 | 66,519 | 65,372 | 63,300 | 31.9 | -4.8 |
| Physical sciences..... | 8,941 | 10,028 | 10,628 | 11,072 | 11,773 | 12,466 | 12,725 | 12,805 | 12,252 | 11,707 | 11,442 | 28.0 | -6.6 |
| Astronomy..... | 154 | 163 | 182 | 166 | 164 | 192 | 217 | 225 | 217 | 262 | 232 | 50.6 | 6.9 |
| Chemistry..... | 4,371 | 4,842 | 5,299 | 5,659 | 6,107 | 6,643 | 6,898 | 6,907 | 6,675 | 6,412 | 6,464 | 47.9 | -3.2 |
| Physics..... | 4,394 | 4,990 | 5,115 | 5,201 | 5,469 | 5,592 | 5,570 | 5,627 | 5,284 | 4,945 | 4,663 | 6.1 | -11.8 |
| Other physical sciences..... | 22 | 33 | 32 | 46 | 33 | 39 | 40 | 46 | 76 | 88 | 83 | 277.3 | 9.2 |
| Earth, atmospheric, and ocean sciences..... | 1,866 | 2,070 | 2,190 | 2,408 | 2,575 | 2,675 | 2,897 | 3,004 | 3,010 | 3,266 | 2,936 | 57.3 | -2.5 |
| Atmospheric sciences..... | 209 | 213 | 239 | 247 | 249 | 281 | 310 | 324 | 297 | 265 | 266 | 27.3 | -10.4 |
| Earth sciences..... | 1,026 | 1,124 | 1,213 | 1,316 | 1,404 | 1,481 | 1,535 | 1,668 | 1,672 | 1,750 | 1,543 | 50.4 | -7.7 |
| Oceanography..... | 345 | 424 | 404 | 465 | 563 | 557 | 609 | 593 | 589 | 721 | 621 | 80.0 | 5.4 |
| Other geosciences..... | 286 | 309 | 334 | 380 | 359 | 356 | 443 | 419 | 452 | 530 | 506 | 76.9 | 11.9 |
| Mathematics and statistics..... | 5,345 | 5,810 | 6,129 | 6,425 | 6,683 | 6,564 | 6,634 | 6,477 | 6,134 | 6,083 | 5,821 | 8.9 | -5.1 |
| Computer science..... | 7,497 | 8,058 | 8,777 | 8,984 | 9,694 | 10,906 | 11,622 | 12,155 | 11,954 | 11,078 | 10,713 | 42.9 | -10.4 |
| Biological sciences..... | 9,523 | 10,591 | 11,592 | 12,618 | 13,711 | 14,702 | 15,704 | 15,997 | 16,063 | 16,008 | 15,420 | 61.9 | -4.0 |
| Agricultural sciences..... | 2,656 | 2,793 | 2,914 | 2,929 | 2,939 | 3,183 | 3,208 | 3,178 | 3,136 | 3,139 | 3,122 | 17.5 | -0.4 |
| Biological sciences..... | 6,867 | 7,798 | 8,678 | 9,689 | 10,772 | 11,519 | 12,496 | 12,819 | 12,927 | 12,869 | 12,298 | 79.1 | -4.9 |
| Psychology..... | 1,492 | 1,502 | 1,539 | 1,647 | 1,631 | 1,818 | 1,988 | 1,961 | 1,909 | 2,363 | 2,117 | 41.9 | 10.9 |
| Social sciences..... | 13,326 | 13,971 | 14,558 | 15,235 | 15,319 | 15,490 | 15,722 | 15,677 | 15,197 | 14,867 | 14,851 | 11.4 | -2.3 |
| Economics..... | 5,464 | 5,472 | 5,708 | 6,088 | 6,233 | 6,347 | 6,482 | 6,734 | 6,425 | 6,318 | 6,494 | 18.9 | 1.1 |
| Political science and public administration... | 3,175 | 3,636 | 3,717 | 3,720 | 3,546 | 3,487 | 3,608 | 3,538 | 3,537 | 3,418 | 3,391 | 6.8 | -4.1 |
| Sociology..... | 1,576 | 1,583 | 1,701 | 1,811 | 1,804 | 1,820 | 1,722 | 1,651 | 1,551 | 1,430 | 1,304 | -17.3 | -15.9 |
| Anthropology..... | 541 | 632 | 662 | 730 | 763 | 791 | 824 | 814 | 800 | 787 | 700 | 29.4 | -12.5 |
| Linguistics..... | 1,072 | 1,093 | 1,103 | 1,141 | 1,177 | 1,237 | 1,259 | 1,097 | 1,061 | 1,012 | 997 | -7.0 | -6.0 |
| History of science..... | 55 | 42 | 43 | 46 | 40 | 44 | 51 | 60 | 55 | 56 | 51 | -7.3 | -7.3 |
| Other social sciences..... | 1,443 | 1,513 | 1,624 | 1,699 | 1,756 | 1,764 | 1,776 | 1,783 | 1,768 | 1,846 | 1,914 | 32.6 | 8.3 |
| Engineering..... | 28,822 | 31,945 | 33,377 | 35,226 | 36,697 | 38,199 | 41,343 | 41,440 | 39,267 | 36,995 | 35,487 | 23.1 | -9.6 |
| Aerospace engineering..... | 809 | 872 | 871 | 1,110 | 1,093 | 1,231 | 1,228 | 1,182 | 1,201 | 1,239 | 1,186 | 46.6 | -1.2 |
| Chemical engineering..... | 2,421 | 2,372 | 2,486 | 2,547 | 2,798 | 2,944 | 3,188 | 3,275 | 3,168 | 3,013 | 2,950 | 21.9 | -6.9 |
| Civil engineering..... | 5,387 | 5,690 | 5,587 | 5,811 | 5,835 | 5,914 | 6,544 | 6,838 | 6,284 | 5,934 | 5,600 | 4.0 | -10.9 |
| Electrical engineering..... | 8,443 | 9,544 | 10,117 | 10,365 | 11,148 | 11,595 | 12,816 | 12,833 | 12,440 | 11,408 | 11,308 | 33.9 | -9.1 |
| Mechanical engineering..... | 4,787 | 5,384 | 5,511 | 6,020 | 5,815 | 6,080 | 6,674 | 6,762 | 6,278 | 5,838 | 5,442 | 13.7 | -13.3 |
| Materials engineering..... | 1,369 | 1,608 | 1,693 | 1,780 | 1,941 | 2,115 | 2,168 | 2,211 | 2,162 | 1,966 | 1,933 | 41.2 | -10.6 |
| Industrial engineering..... | 1,947 | 2,165 | 2,613 | 2,683 | 2,918 | 3,119 | 3,774 | 3,843 | 3,443 | 3,576 | 3,317 | 70.4 | -3.7 |
| Other engineering..... | 3,659 | 4,310 | 4,499 | 4,910 | 5,149 | 5,201 | 4,951 | 4,496 | 4,291 | 4,021 | 3,751 | 2.5 | -12.6 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-23. U.S. citizen and permanent resident graduate students in science and engineering, by field and race/ethnicity: 1985-1995

| Race and ethnicity | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Page 1 of 1 | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | Percent change | | Percent proportion | |
| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Total enrollment..... | 358,126 | 368,119 | 373,355 | 375,287 | 382,769 | 397,159 | 412,708 | 430,797 | 436,233 | 431,758 | 423,922 | 18.4 | -2.8 | 100.0 | 100.0 |
| Total U.S. citizens..... | 281,314 | 284,144 | 284,565 | 281,672 | 284,686 | 294,339 | 304,073 | 321,281 | 330,447 | 329,391 | 325,135 | 15.6 | -1.6 | 78.6 | 76.7 |
| Black, non-Hispanic..... | 10,453 | 10,460 | 10,426 | 11,191 | 11,775 | 12,774 | 13,691 | 15,449 | 17,147 | 17,665 | 18,366 | 75.7 | 7.1 | 2.9 | 4.3 |
| American Indian or Alaskan Native..... | 737 | 743 | 782 | 918 | 860 | 1,054 | 1,120 | 1,244 | 1,312 | 1,383 | 1,524 | 106.8 | 16.2 | 0.2 | 0.4 |
| Asian or Pacific Islander..... | 12,003 | 12,775 | 14,565 | 15,188 | 15,693 | 17,156 | 18,139 | 21,762 | 24,149 | 26,457 | 26,015 | 116.7 | 7.7 | 3.4 | 6.1 |
| Hispanic..... | 8,614 | 8,658 | 8,823 | 9,098 | 9,436 | 10,159 | 11,045 | 12,248 | 13,386 | 13,284 | 14,089 | 63.6 | 5.3 | 2.4 | 3.3 |
| White, non-Hispanic..... | 223,682 | 227,547 | 228,809 | 229,037 | 229,694 | 238,492 | 243,608 | 253,516 | 257,009 | 255,976 | 246,776 | 10.3 | -4.0 | 62.5 | 58.2 |
| Other/unknown..... | 25,825 | 23,961 | 21,160 | 16,240 | 17,228 | 14,704 | 16,470 | 17,062 | 17,444 | 14,626 | 18,365 | -28.9 | 5.3 | 7.2 | 4.3 |
| Non U.S. citizens..... | 76,812 | 83,975 | 88,790 | 93,615 | 98,083 | 102,820 | 108,635 | 109,516 | 105,786 | 102,367 | 98,787 | 28.6 | -6.6 | 21.4 | 23.3 |
| Total full-time enrollment..... | 234,056 | 242,841 | 247,219 | 250,667 | 256,928 | 265,423 | 277,183 | 290,654 | 294,227 | 293,324 | 288,016 | 23.1 | -2.1 | 65.4 | 67.9 |
| Total U.S. citizens..... | 168,339 | 170,462 | 171,183 | 170,246 | 173,439 | 177,825 | 185,496 | 197,569 | 204,630 | 206,916 | 204,742 | 21.6 | 0.1 | 47.0 | 48.3 |
| Black, non-Hispanic..... | 5,580 | 5,564 | 5,608 | 6,060 | 6,594 | 7,029 | 7,692 | 8,908 | 9,910 | 10,357 | 10,672 | 91.3 | 7.7 | 1.6 | 2.5 |
| American Indian or Alaskan Native..... | 479 | 490 | 519 | 570 | 551 | 655 | 717 | 848 | 899 | 960 | 1,064 | 122.1 | 18.4 | 0.1 | 0.3 |
| Asian or Pacific Islander..... | 7,255 | 7,896 | 9,062 | 9,470 | 9,820 | 10,611 | 11,270 | 13,326 | 15,225 | 17,111 | 16,805 | 131.6 | 10.4 | 2.0 | 4.0 |
| Hispanic..... | 5,143 | 5,238 | 5,193 | 5,503 | 5,924 | 6,389 | 6,931 | 7,597 | 8,202 | 8,180 | 9,057 | 76.1 | 10.4 | 1.4 | 2.1 |
| White, non-Hispanic..... | 138,071 | 141,356 | 140,921 | 140,947 | 142,475 | 146,717 | 150,945 | 158,514 | 161,427 | 162,903 | 158,016 | 14.4 | -2.1 | 38.6 | 37.3 |
| Other/unknown..... | 11,811 | 9,918 | 9,880 | 7,696 | 8,075 | 6,424 | 7,941 | 8,376 | 8,967 | 7,405 | 9,128 | -22.7 | 1.8 | 3.3 | 2.2 |
| Non U.S. citizens..... | 65,717 | 72,379 | 76,036 | 80,421 | 83,489 | 87,598 | 91,687 | 93,085 | 89,597 | 86,408 | 83,274 | 26.7 | -7.1 | 18.4 | 19.6 |
| Total part-time enrollment..... | 124,070 | 125,278 | 126,136 | 124,620 | 125,841 | 131,736 | 135,525 | 140,143 | 142,006 | 138,434 | 135,906 | 9.5 | -4.3 | 34.6 | 32.1 |
| Total U.S. citizens..... | 112,975 | 113,682 | 113,382 | 111,426 | 111,247 | 116,514 | 118,577 | 123,712 | 125,817 | 122,475 | 120,393 | 6.6 | -4.3 | 31.5 | 28.4 |
| Black, non-Hispanic..... | 4,873 | 4,896 | 4,818 | 5,131 | 5,181 | 5,745 | 5,999 | 6,541 | 7,237 | 7,308 | 7,694 | 57.9 | 6.3 | 1.4 | 1.8 |
| American Indian or Alaskan Native..... | 258 | 253 | 263 | 348 | 309 | 399 | 403 | 396 | 413 | 423 | 460 | 78.3 | 11.4 | 0.1 | 0.1 |
| Asian or Pacific Islander..... | 4,748 | 4,879 | 5,503 | 5,718 | 5,873 | 6,545 | 6,869 | 8,436 | 8,924 | 9,346 | 9,210 | 94.0 | 3.2 | 1.3 | 2.2 |
| Hispanic..... | 3,471 | 3,420 | 3,630 | 3,595 | 3,512 | 3,770 | 4,114 | 4,651 | 5,184 | 5,104 | 5,032 | 45.0 | -2.9 | 1.0 | 1.2 |
| White, non-Hispanic..... | 85,611 | 86,191 | 87,888 | 88,090 | 87,219 | 91,775 | 92,663 | 95,002 | 95,582 | 93,073 | 88,760 | 3.7 | -7.1 | 23.9 | 20.9 |
| Other/unknown..... | 14,014 | 14,043 | 11,280 | 8,544 | 9,153 | 8,280 | 8,529 | 8,686 | 8,477 | 7,221 | 9,237 | -34.1 | 9.0 | 3.9 | 2.2 |
| Non U.S. citizens..... | 11,095 | 11,596 | 12,754 | 13,194 | 14,594 | 15,222 | 16,948 | 16,431 | 16,189 | 15,959 | 15,513 | 39.8 | -4.2 | 3.1 | 3.7 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-24. Graduate students in science and engineering attending Historically Black Colleges and Universities, by field and race/ethnicity: 1985-1995 (U.S. citizens and permanent residents only)

Page 1 of 2

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | | |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-----------|--------------------|-------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 | |
| All races and ethnicities | | | | | | | | | | | | | | | | |
| Total science and engineering..... | 2,225 | 2,100 | 1,877 | 2,198 | 2,295 | 2,526 | 2,615 | 2,778 | 3,181 | 3,810 | 3,834 | 72.3 | | 20.5 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | | |
| Physical sciences..... | 198 | 182 | 191 | 223 | 226 | 226 | 248 | 231 | 286 | 340 | 375 | 89.4 | | 31.1 | 8.9 | 9.8 |
| Geosciences..... | 18 | 10 | 11 | 28 | 21 | 38 | 48 | 70 | 80 | 64 | 73 | 305.6 | | -8.8 | 0.8 | 1.9 |
| Mathematical sciences..... | 320 | 312 | 269 | 322 | 384 | 416 | 436 | 443 | 517 | 522 | 491 | 53.4 | | -5.0 | 14.4 | 12.8 |
| Agricultural sciences..... | 45 | 29 | 18 | 14 | 15 | 49 | 60 | 96 | 105 | 136 | 167 | 271.1 | | 59.0 | 2.0 | 4.4 |
| Biological sciences..... | 345 | 306 | 276 | 301 | 333 | 334 | 339 | 377 | 521 | 570 | 607 | 75.9 | | 16.5 | 15.5 | 15.8 |
| Psychology..... | 389 | 408 | 360 | 425 | 403 | 415 | 409 | 479 | 530 | 694 | 573 | 47.3 | | 8.1 | 17.5 | 14.9 |
| Social sciences..... | 799 | 688 | 642 | 716 | 693 | 811 | 812 | 788 | 821 | 1,063 | 1,089 | 36.3 | | 32.6 | 35.9 | 28.4 |
| Engineering..... | 111 | 165 | 110 | 169 | 220 | 237 | 263 | 294 | 321 | 421 | 459 | 313.5 | | 43.0 | 5.0 | 12.0 |
| Black, non-Hispanic | | | | | | | | | | | | | | | | |
| Total science and engineering..... | 1,587 | 1,624 | 1,487 | 1,671 | 1,700 | 1,913 | 1,959 | 2,075 | 2,433 | 2,768 | 2,917 | 83.8 | | 19.9 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | | |
| Physical sciences..... | 166 | 159 | 160 | 165 | 179 | 174 | 190 | 179 | 211 | 231 | 249 | 50.0 | | 18.0 | 10.5 | 8.5 |
| Geosciences..... | 10 | 3 | 10 | 11 | 3 | 14 | 24 | 30 | 42 | 30 | 38 | 280.0 | | -9.5 | 0.6 | 1.3 |
| Mathematical sciences..... | 181 | 216 | 212 | 223 | 230 | 267 | 296 | 311 | 359 | 382 | 349 | 92.8 | | -2.8 | 11.4 | 12.0 |
| Agricultural sciences..... | 21 | 22 | 13 | 11 | 10 | 34 | 37 | 70 | 84 | 102 | 130 | 519.0 | | 54.8 | 1.3 | 4.5 |
| Biological sciences..... | 313 | 272 | 239 | 248 | 273 | 278 | 278 | 306 | 403 | 453 | 492 | 57.2 | | 22.1 | 19.7 | 16.9 |
| Psychology..... | 217 | 232 | 196 | 280 | 276 | 313 | 317 | 352 | 428 | 489 | 428 | 97.2 | | 0.0 | 13.7 | 14.7 |
| Social sciences..... | 600 | 632 | 582 | 627 | 587 | 691 | 674 | 650 | 694 | 828 | 937 | 56.2 | | 35.0 | 37.8 | 32.1 |
| Engineering..... | 79 | 88 | 75 | 106 | 142 | 142 | 143 | 177 | 212 | 253 | 294 | 272.2 | | 38.7 | 5.0 | 10.1 |
| American Indian or Alaskan Native | | | | | | | | | | | | | | | | |
| Total science and engineering..... | 2 | 2 | 2 | 1 | 5 | 2 | 2 | 7 | 7 | 5 | 19 | 850.0 | | 171.4 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | | |
| Physical sciences..... | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 15 | 1,400.0 | | 650.0 | 50.0 | 78.9 |
| Geosciences..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Mathematical sciences..... | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | N/A | | N/A | 0.0 | 5.3 |
| Agricultural sciences..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0.0 | | -100.0 | 0.0 | 0.0 |
| Biological sciences..... | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0.0 | | -50.0 | 50.0 | 5.3 |
| Psychology..... | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Social sciences..... | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0.0 | | -100.0 | 0.0 | 0.0 |
| Engineering..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | N/A | | N/A | 0.0 | 10.5 |
| Asian or Pacific Islander | | | | | | | | | | | | | | | | |
| Total science and engineering..... | 95 | 72 | 56 | 87 | 144 | 154 | 185 | 150 | 165 | 186 | 175 | 84.2 | | 6.1 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | | |
| Physical sciences..... | 13 | 4 | 3 | 10 | 21 | 17 | 31 | 10 | 25 | 40 | 31 | 138.5 | | 24.0 | 13.7 | 17.7 |
| Geosciences..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 8 | 5 | 100.0 | | -37.5 | 0.0 | 2.9 |
| Mathematical sciences..... | 55 | 42 | 20 | 37 | 64 | 68 | 59 | 66 | 62 | 48 | 51 | -7.3 | | -17.7 | 57.9 | 29.1 |
| Agricultural sciences..... | 4 | 1 | 0 | 0 | 0 | 5 | 8 | 6 | 4 | 4 | 4 | 0.0 | | 0.0 | 4.2 | 2.3 |
| Biological sciences..... | 7 | 9 | 6 | 10 | 13 | 20 | 20 | 15 | 31 | 40 | 34 | 385.7 | | 9.7 | 7.4 | 19.4 |
| Psychology..... | 0 | 1 | 1 | 4 | 6 | 3 | 8 | 1 | 2 | 2 | 2 | 100.0 | | 100.0 | 0.0 | 1.1 |
| Social sciences..... | 7 | 7 | 15 | 12 | 10 | 10 | 9 | 9 | 10 | 9 | 9 | 28.6 | | 0.0 | 7.4 | 5.1 |
| Engineering..... | 9 | 8 | 11 | 14 | 30 | 31 | 50 | 39 | 25 | 34 | 39 | 333.3 | | 56.0 | 9.5 | 22.3 |

See explanatory information and SOURCES at end of table.

Appendix table 4-24. Graduate students in science and engineering attending Historically Black Colleges and Universities, by field and race/ethnicity: 1985-1995 (U.S. citizens and permanent residents only)

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| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Percent change | | Percent proportion | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|----------------|-----------|--------------------|-------|
| | | | | | | | | | | | | 1985-1995 | 1993-1995 | 1985 | 1995 |
| Hispanic | | | | | | | | | | | | | | | |
| Total science and engineering..... | 24 | 9 | 12 | 22 | 26 | 19 | 23 | 25 | 40 | 41 | 45 | 87.5 | 12.5 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | |
| Physical sciences..... | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 1 | 10 | 9 | 9 | 350.0 | -10.0 | 8.3 | 20.0 |
| Geosciences..... | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | -33.3 | 100.0 | 12.5 | 4.4 |
| Mathematical sciences..... | 6 | 0 | 3 | 2 | 4 | 3 | 2 | 3 | 1 | 7 | 6 | 0.0 | 500.0 | 25.0 | 13.3 |
| Agricultural sciences..... | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 5 | 4 | 4 | 3 | 100.0 | -25.0 | 0.0 | 6.7 |
| Biological sciences..... | 5 | 5 | 3 | 5 | 7 | 6 | 8 | 4 | 8 | 9 | 9 | 80.0 | 12.5 | 20.8 | 20.0 |
| Psychology..... | 3 | 1 | 1 | 5 | 7 | 1 | 1 | 2 | 3 | 3 | 3 | 0.0 | 0.0 | 12.5 | 6.7 |
| Social sciences..... | 4 | 1 | 1 | 3 | 4 | 5 | 6 | 4 | 3 | 5 | 3 | -25.0 | 0.0 | 16.7 | 6.7 |
| Engineering..... | 1 | 1 | 2 | 5 | 4 | 3 | 2 | 5 | 10 | 3 | 10 | 900.0 | 0.0 | 4.2 | 22.2 |
| White, non-Hispanic | | | | | | | | | | | | | | | |
| Total science and engineering..... | 296 | 300 | 262 | 306 | 318 | 353 | 378 | 427 | 429 | 665 | 536 | 81.1 | 24.9 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | |
| Physical sciences..... | 11 | 7 | 9 | 11 | 19 | 29 | 21 | 35 | 24 | 43 | 44 | 300.0 | 83.3 | 3.7 | 8.2 |
| Geosciences..... | 5 | 7 | 1 | 17 | 18 | 22 | 19 | 31 | 25 | 20 | 28 | 460.0 | 12.0 | 1.7 | 5.2 |
| Mathematical sciences..... | 70 | 46 | 28 | 33 | 46 | 50 | 54 | 35 | 51 | 57 | 70 | 0.0 | 37.3 | 23.6 | 13.1 |
| Agricultural sciences..... | 2 | 6 | 4 | 3 | 5 | 9 | 12 | 8 | 5 | 15 | 15 | 650.0 | 200.0 | 0.7 | 2.8 |
| Biological sciences..... | 14 | 14 | 21 | 35 | 33 | 30 | 32 | 38 | 55 | 52 | 48 | 242.9 | -12.7 | 4.7 | 9.0 |
| Psychology..... | 151 | 169 | 141 | 130 | 97 | 81 | 77 | 118 | 93 | 200 | 139 | -7.9 | 49.5 | 51.0 | 25.9 |
| Social sciences..... | 21 | 22 | 36 | 40 | 60 | 77 | 105 | 104 | 111 | 178 | 112 | 433.3 | 0.9 | 7.1 | 20.9 |
| Engineering..... | 22 | 29 | 22 | 37 | 40 | 55 | 58 | 58 | 65 | 100 | 80 | 263.6 | 23.1 | 7.4 | 14.9 |
| Other/Unknown races and ethnicities | | | | | | | | | | | | | | | |
| Total science and engineering..... | 221 | 93 | 58 | 111 | 102 | 85 | 68 | 94 | 107 | 145 | 142 | -35.7 | 32.7 | 100.0 | 100.0 |
| Sciences | | | | | | | | | | | | | | | |
| Physical sciences..... | 5 | 10 | 18 | 34 | 6 | 6 | 4 | 5 | 14 | 15 | 27 | 440.0 | 92.9 | 2.3 | 19.0 |
| Geosciences..... | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 4 | 4 | 5 | 0 | 0.0 | -100.0 | 0.0 | 0.0 |
| Mathematical sciences..... | 8 | 8 | 6 | 27 | 38 | 28 | 25 | 28 | 44 | 27 | 14 | 75.0 | -68.2 | 3.6 | 9.9 |
| Agricultural sciences..... | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 11 | 15 | -16.7 | 150.0 | 8.1 | 10.6 |
| Biological sciences..... | 5 | 5 | 6 | 3 | 7 | 0 | 1 | 13 | 22 | 15 | 23 | 360.0 | 4.5 | 2.3 | 16.2 |
| Psychology..... | 18 | 5 | 21 | 6 | 16 | 16 | 6 | 5 | 5 | 0 | 1 | -94.4 | -80.0 | 8.1 | 0.7 |
| Social sciences..... | 167 | 26 | 7 | 34 | 31 | 27 | 17 | 19 | 3 | 41 | 28 | -83.2 | 833.3 | 75.6 | 19.7 |
| Engineering..... | 0 | 39 | 0 | 7 | 4 | 6 | 10 | 15 | 9 | 31 | 34 | N/A | 277.8 | 0.0 | 23.9 |

SOURCE: National Science Foundation/SRS. Survey of Graduate Students and Postdoctorates in Science and Engineering.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-25. Graduate enrollment, by disability status and field: 1996

[Percentage distribution]

Page 1 of 1

| | Total | Social/ behavioral sciences | Life and physical sciences | Engineering/ computer science/math | Humanities | Education | Business/ management | Health | Law | Other | Missing/ undeclared |
|--|-------|-----------------------------------|----------------------------------|--|------------|-----------|-------------------------|--------|------|-------|------------------------|
| Percentage | | | | | | | | | | | |
| Total (N=2,464,000)..... | 100 | 8.3 | 6.7 | 8.8 | 8.7 | 27.8 | 18.1 | 7.7 | 0.4 | 3.1 | 10.3 |
| Students without disabilities (N=2,338,000)..... | 100 | 8.5 | 6.9 | 8.9 | 8.7 | 28.1 | 18.2 | 7.2 | 0.4 | 3.0 | 10.2 |
| Students with disabilities (N=82,000)..... | 100 | 6.0 | 2.2 | 3.8 | 5.9 | 24.8 | 15.3 | 25.4 | 0.3 | 4.0 | 12.3 |
| Standard errors | | | | | | | | | | | |
| Total..... | | 0.86 | 0.97 | 1.00 | 1.29 | 1.64 | 1.57 | 1.04 | 0.13 | 0.57 | 1.12 |
| Students without disabilities..... | | 0.90 | 0.99 | 1.02 | 1.33 | 1.70 | 1.62 | 0.99 | 0.14 | 0.54 | 1.18 |
| Students with disabilities..... | | 2.11 | 1.48 | 2.07 | 2.15 | 5.70 | 4.56 | 8.23 | 0.20 | 2.62 | 4.98 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education/NCES. 1995-96 National Postsecondary Student Aid Study. Data analysis system.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-26. Total degrees awarded in all fields, by degree level and sex of recipient: 1966-1995

Page 1 of 1

| Year | Bachelor's | | | Master's | | | Doctoral | | |
|-----------|------------|---------|---------------|----------|---------|---------------|----------|--------|---------------|
| | Men | Women | Percent women | Men | Women | Percent women | Men | Women | Percent women |
| 1966..... | 301,037 | 222,971 | 42.6 | 93,184 | 47,588 | 33.8 | 15,863 | 2,086 | 11.6 |
| 1967..... | 324,236 | 238,133 | 42.3 | 103,179 | 54,713 | 34.7 | 17,961 | 2,442 | 12.0 |
| 1968..... | 359,747 | 277,116 | 43.5 | 113,749 | 63,401 | 35.8 | 20,005 | 2,932 | 12.8 |
| 1969..... | 412,865 | 321,138 | 43.8 | 121,881 | 72,533 | 37.3 | 22,355 | 3,388 | 13.2 |
| 1970..... | 453,605 | 344,465 | 43.2 | 126,146 | 83,241 | 39.8 | 25,527 | 3,971 | 13.5 |
| 1971..... | 478,423 | 367,687 | 43.5 | 138,590 | 92,896 | 40.1 | 27,271 | 4,596 | 14.4 |
| 1972..... | 503,631 | 390,479 | 43.7 | 150,085 | 102,689 | 40.6 | 27,754 | 5,287 | 16.0 |
| 1973..... | 521,534 | 408,738 | 43.9 | 155,000 | 109,525 | 41.4 | 27,670 | 6,085 | 18.0 |
| 1974..... | 530,907 | 423,469 | 44.4 | 158,344 | 119,915 | 43.1 | 26,594 | 6,453 | 19.5 |
| 1975..... | 508,424 | 423,239 | 45.4 | 162,115 | 131,536 | 44.8 | 25,751 | 7,201 | 21.9 |
| 1976..... | 508,549 | 425,894 | 45.6 | 167,745 | 145,256 | 46.4 | 25,262 | 7,684 | 23.3 |
| 1977..... | 499,121 | 429,107 | 46.2 | 168,210 | 150,031 | 47.1 | 23,858 | 7,858 | 24.8 |
| 1978..... | 491,066 | 439,135 | 47.2 | 161,708 | 151,108 | 48.3 | 22,553 | 8,322 | 27.0 |
| 1979..... | 481,394 | 449,946 | 48.3 | 153,772 | 148,303 | 49.1 | 22,302 | 8,937 | 28.6 |
| 1980..... | 477,750 | 462,501 | 49.2 | 151,159 | 147,936 | 49.5 | 21,612 | 9,408 | 30.3 |
| 1981..... | 474,336 | 472,541 | 49.9 | 147,431 | 149,367 | 50.3 | 21,464 | 9,892 | 31.5 |
| 1982..... | 477,543 | 486,500 | 50.5 | 145,941 | 150,639 | 50.8 | 21,018 | 10,093 | 32.4 |
| 1983..... | 483,395 | 497,284 | 50.7 | 145,114 | 145,817 | 50.1 | 20,748 | 10,533 | 33.7 |
| 1984..... | 486,750 | 499,595 | 50.7 | 143,998 | 141,464 | 49.6 | 20,638 | 10,699 | 34.1 |
| 1985..... | 486,660 | 504,217 | 50.9 | 143,716 | 143,497 | 50.0 | 20,553 | 10,744 | 34.3 |
| 1986..... | 490,143 | 510,061 | 51.0 | 143,932 | 145,897 | 50.3 | 20,595 | 11,307 | 35.4 |
| 1987..... | 485,003 | 518,529 | 51.7 | 141,655 | 148,877 | 51.2 | 20,938 | 11,432 | 35.3 |
| 1988..... | 481,236 | 524,797 | 52.2 | 145,403 | 154,688 | 51.5 | 21,682 | 11,819 | 35.3 |
| 1989..... | 487,566 | 542,605 | 52.7 | 149,399 | 161,651 | 52.0 | 21,813 | 12,513 | 36.5 |
| 1990..... | 495,867 | 566,284 | 53.3 | 154,025 | 170,922 | 52.6 | 22,962 | 13,105 | 36.3 |
| 1991..... | 508,952 | 599,045 | 54.1 | 156,895 | 181,603 | 53.6 | 23,652 | 13,870 | 37.0 |
| 1992..... | 525,395 | 624,677 | 54.3 | 162,299 | 191,908 | 54.2 | 24,436 | 14,420 | 37.1 |
| 1993..... | 537,536 | 641,742 | 54.4 | 169,753 | 201,220 | 54.2 | 24,658 | 15,113 | 38.0 |
| 1994..... | 537,061 | 646,080 | 54.6 | 176,762 | 212,246 | 54.6 | 25,211 | 15,806 | 38.5 |
| 1995..... | 531,146 | 643,290 | 54.8 | 179,198 | 220,230 | 55.1 | 25,277 | 16,333 | 39.3 |

SOURCES: Tabulations by National Science Foundation/SRS; data from Department of Education/National Center for Education Statistics Survey Center for Education Statistics Survey of Degrees and Other Formal Awards Conferred, and Completions Survey; and NSF/SRS, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-27. Science and engineering degrees awarded, by degree level and sex of recipient: 1966-1995

Page 1 of 1

| Year | Bachelor's | | | Master's | | | Doctoral | | |
|-----------|------------|---------|---------------|----------|--------|---------------|----------|-------|---------------|
| | Men | Women | Percent women | Men | Women | Percent women | Men | Women | Percent women |
| 1966..... | 138,679 | 45,634 | 24.8 | 35,580 | 5,469 | 13.3 | 10,646 | 924 | 8.0 |
| 1967..... | 149,045 | 50,787 | 25.4 | 38,682 | 6,306 | 14.0 | 12,013 | 1,096 | 8.4 |
| 1968..... | 165,200 | 61,397 | 27.1 | 41,551 | 7,209 | 14.8 | 13,328 | 1,317 | 9.0 |
| 1969..... | 189,272 | 72,917 | 27.8 | 44,182 | 8,200 | 15.7 | 14,781 | 1,507 | 9.3 |
| 1970..... | 204,528 | 79,702 | 28.0 | 43,973 | 9,722 | 18.1 | 16,404 | 1,648 | 9.1 |
| 1971..... | 209,318 | 85,039 | 28.9 | 46,116 | 10,338 | 18.3 | 17,385 | 1,996 | 10.3 |
| 1972..... | 216,422 | 90,037 | 29.4 | 48,721 | 11,328 | 18.9 | 17,191 | 2,151 | 11.1 |
| 1973..... | 225,090 | 95,995 | 29.9 | 50,233 | 11,813 | 19.0 | 16,853 | 2,520 | 13.0 |
| 1974..... | 223,652 | 102,578 | 31.4 | 49,528 | 12,711 | 20.4 | 16,043 | 2,671 | 14.3 |
| 1975..... | 210,741 | 102,814 | 32.8 | 49,410 | 13,788 | 21.8 | 15,870 | 2,929 | 15.6 |
| 1976..... | 205,570 | 103,921 | 33.6 | 49,992 | 15,015 | 23.1 | 15,375 | 3,097 | 16.8 |
| 1977..... | 198,805 | 104,993 | 34.6 | 50,899 | 16,498 | 24.5 | 14,775 | 3,233 | 18.0 |
| 1978..... | 195,888 | 107,667 | 35.5 | 50,034 | 17,230 | 25.6 | 14,199 | 3,454 | 19.6 |
| 1979..... | 193,247 | 109,915 | 36.3 | 46,614 | 17,612 | 27.4 | 14,128 | 3,744 | 20.9 |
| 1980..... | 191,215 | 113,480 | 37.2 | 46,004 | 18,085 | 28.2 | 13,814 | 3,961 | 22.3 |
| 1981..... | 190,977 | 115,815 | 37.8 | 45,505 | 18,861 | 29.3 | 14,056 | 4,201 | 23.0 |
| 1982..... | 193,624 | 121,399 | 38.5 | 46,557 | 20,011 | 30.1 | 13,925 | 4,350 | 23.8 |
| 1983..... | 194,380 | 123,191 | 38.8 | 46,734 | 20,999 | 31.0 | 13,920 | 4,715 | 25.3 |
| 1984..... | 199,150 | 125,134 | 38.6 | 47,049 | 21,533 | 31.4 | 13,956 | 4,792 | 25.6 |
| 1985..... | 203,402 | 128,871 | 38.8 | 48,247 | 22,331 | 31.6 | 14,044 | 4,891 | 25.8 |
| 1986..... | 204,743 | 130,662 | 39.0 | 48,621 | 23,219 | 32.3 | 14,270 | 5,167 | 26.6 |
| 1987..... | 199,981 | 131,545 | 39.7 | 48,759 | 23,844 | 32.8 | 14,582 | 5,312 | 26.7 |
| 1988..... | 191,549 | 130,933 | 40.6 | 49,820 | 23,835 | 32.4 | 15,271 | 5,662 | 27.0 |
| 1989..... | 189,338 | 133,483 | 41.3 | 50,845 | 25,580 | 33.5 | 15,622 | 6,109 | 28.1 |
| 1990..... | 189,082 | 140,012 | 42.5 | 51,230 | 26,558 | 34.1 | 16,498 | 6,369 | 27.9 |
| 1991..... | 189,328 | 148,347 | 43.9 | 50,441 | 27,927 | 35.6 | 17,088 | 6,931 | 28.9 |
| 1992..... | 195,779 | 159,486 | 44.9 | 52,157 | 28,950 | 35.7 | 17,593 | 7,080 | 28.7 |
| 1993..... | 200,315 | 165,720 | 45.3 | 55,454 | 30,971 | 35.8 | 17,789 | 7,652 | 30.1 |
| 1994..... | 202,284 | 170,977 | 45.8 | 57,970 | 33,441 | 36.6 | 18,283 | 7,919 | 30.2 |
| 1995..... | 202,217 | 175,931 | 46.5 | 58,518 | 33,791 | 38.0 | 18,242 | 8,273 | 31.2 |

SOURCES: Tabulations by National Science Foundation/SRS; data from Department of Education/National Center for Education Statistics Survey of Degrees and Other Formal Awards Conferred, and Completions Survey; and NSF/SRS, Survey of Earned Doctorates.

**Appendix table 4-28. Non-science and -engineering degrees awarded, by degree level and sex of recipient:
1966–1995**

Page 1 of 1

| Year | Bachelor's | | | Master's | | | Doctoral | | |
|-----------|------------|---------|---------------|----------|---------|---------------|----------|-------|---------------|
| | Men | Women | Percent women | Men | Women | Percent women | Men | Women | Percent women |
| 1966..... | 162,358 | 177,337 | 52.2 | 57,604 | 42,119 | 42.2 | 5,217 | 1,162 | 18.2 |
| 1967..... | 175,191 | 187,346 | 51.7 | 64,497 | 48,407 | 42.9 | 5,948 | 1,346 | 18.5 |
| 1968..... | 194,547 | 215,719 | 52.6 | 72,198 | 56,192 | 43.8 | 6,677 | 1,615 | 19.5 |
| 1969..... | 223,593 | 248,221 | 52.6 | 77,699 | 64,333 | 45.3 | 7,574 | 1,881 | 19.9 |
| 1970..... | 249,077 | 264,763 | 51.5 | 82,173 | 73,519 | 47.2 | 9,123 | 2,323 | 20.3 |
| 1971..... | 269,105 | 282,648 | 51.2 | 92,474 | 82,558 | 47.2 | 9,886 | 2,600 | 20.8 |
| 1972..... | 287,209 | 300,442 | 51.1 | 101,364 | 91,361 | 47.4 | 10,563 | 3,136 | 22.9 |
| 1973..... | 296,444 | 312,743 | 51.3 | 104,767 | 97,712 | 48.3 | 10,817 | 3,565 | 24.8 |
| 1974..... | 307,255 | 320,891 | 51.1 | 108,816 | 107,204 | 49.6 | 10,551 | 3,782 | 26.4 |
| 1975..... | 297,683 | 320,425 | 51.8 | 112,705 | 117,748 | 51.1 | 9,881 | 4,272 | 30.2 |
| 1976..... | 302,979 | 321,973 | 51.5 | 117,753 | 130,241 | 52.5 | 9,887 | 4,587 | 31.7 |
| 1977..... | 300,316 | 324,114 | 51.9 | 117,311 | 133,533 | 53.2 | 9,083 | 4,625 | 33.7 |
| 1978..... | 295,178 | 331,468 | 52.9 | 111,674 | 133,878 | 54.5 | 8,354 | 4,868 | 36.8 |
| 1979..... | 288,147 | 340,031 | 54.1 | 107,158 | 130,691 | 54.9 | 8,174 | 5,193 | 38.8 |
| 1980..... | 286,535 | 349,021 | 54.9 | 105,155 | 129,851 | 55.3 | 7,798 | 5,447 | 41.1 |
| 1981..... | 283,359 | 356,726 | 55.7 | 101,926 | 130,506 | 56.1 | 7,408 | 5,691 | 43.4 |
| 1982..... | 283,919 | 365,101 | 56.3 | 99,384 | 130,628 | 56.8 | 7,093 | 5,743 | 44.7 |
| 1983..... | 289,015 | 374,093 | 56.4 | 98,380 | 124,818 | 55.9 | 6,828 | 5,818 | 46.0 |
| 1984..... | 287,600 | 374,461 | 56.6 | 96,949 | 119,931 | 55.3 | 6,682 | 5,907 | 46.9 |
| 1985..... | 283,258 | 375,346 | 57.0 | 95,469 | 121,166 | 55.9 | 6,509 | 5,853 | 47.3 |
| 1986..... | 285,400 | 379,399 | 57.1 | 95,311 | 122,678 | 56.3 | 6,325 | 6,140 | 49.3 |
| 1987..... | 285,022 | 386,984 | 57.6 | 92,896 | 125,033 | 57.4 | 6,356 | 6,120 | 49.1 |
| 1988..... | 289,687 | 393,864 | 57.6 | 95,583 | 130,853 | 57.8 | 6,411 | 6,157 | 49.0 |
| 1989..... | 298,228 | 409,122 | 57.8 | 98,554 | 136,071 | 58.0 | 6,191 | 6,404 | 50.8 |
| 1990..... | 306,785 | 426,272 | 58.1 | 102,795 | 144,364 | 58.4 | 6,464 | 6,736 | 51.0 |
| 1991..... | 319,624 | 450,698 | 58.5 | 106,454 | 153,676 | 59.1 | 6,564 | 6,939 | 51.4 |
| 1992..... | 329,616 | 465,191 | 58.5 | 110,142 | 162,958 | 59.7 | 6,843 | 7,340 | 51.8 |
| 1993..... | 337,221 | 476,022 | 58.5 | 114,299 | 170,249 | 59.8 | 6,869 | 7,461 | 52.1 |
| 1994..... | 334,777 | 475,103 | 58.7 | 118,792 | 178,805 | 60.1 | 6,928 | 7,887 | 53.2 |
| 1995..... | 328,929 | 467,359 | 58.7 | 120,680 | 184,439 | 60.4 | 7,035 | 8,060 | 53.4 |

SOURCES: Tabulations by National Science Foundation/SRS; data from Department of Education/National Center for Education Statistics Survey of Degrees and Other Formal Awards Conferred, and Completions Survey; and NSF/SRS, Survey of Earned Doctorates.

Women, Minorities and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-29. Total master's degree recipients, by major field group and sex: 1985-1995

Page 1 of 1

| Sex and year | All fields | Science and engineering fields | | | | | | | | All other fields |
|-----------------------|------------|--------------------------------|-------------|-------------------|-----------------------------------|--------------------------------|----------------------------------|------------|-----------------|------------------|
| | | Total | Engineering | Physical sciences | Earth, atmos., and ocean sciences | Mathematical/computer sciences | Biological/agricultural sciences | Psychology | Social sciences | |
| Both sexes: | | | | | | | | | | |
| 1985..... | 287,213 | 70,578 | 20,972 | 3,605 | 2,160 | 10,004 | 8,208 | 8,481 | 17,148 | 216,635 |
| 1986..... | 289,829 | 71,840 | 21,096 | 3,649 | 2,234 | 11,254 | 8,023 | 8,363 | 17,221 | 217,989 |
| 1987..... | 290,532 | 72,603 | 22,070 | 3,574 | 2,051 | 11,808 | 7,775 | 8,165 | 17,160 | 217,929 |
| 1988..... | 300,091 | 73,655 | 22,726 | 3,708 | 1,920 | 12,600 | 7,556 | 7,925 | 17,220 | 226,436 |
| 1989..... | 311,050 | 76,425 | 23,743 | 3,876 | 1,819 | 12,829 | 7,523 | 8,652 | 17,983 | 234,625 |
| 1990..... | 324,947 | 77,788 | 23,995 | 3,805 | 1,596 | 13,327 | 7,527 | 9,308 | 18,230 | 247,159 |
| 1991..... | 338,498 | 78,368 | 24,013 | 3,777 | 1,499 | 12,956 | 7,406 | 9,802 | 18,915 | 260,130 |
| 1992..... | 354,207 | 81,107 | 25,018 | 3,922 | 1,425 | 13,320 | 7,885 | 9,852 | 19,685 | 273,100 |
| 1993..... | 370,973 | 86,425 | 27,664 | 3,965 | 1,397 | 14,100 | 8,112 | 10,412 | 20,775 | 284,548 |
| 1994..... | 389,008 | 91,411 | 28,717 | 4,263 | 1,418 | 14,350 | 8,686 | 11,572 | 22,405 | 297,597 |
| 1995..... | 399,428 | 94,309 | 28,630 | 4,241 | 1,483 | 14,495 | 9,069 | 13,132 | 23,259 | 305,119 |
| Men: | | | | | | | | | | |
| 1985..... | 143,716 | 48,247 | 18,728 | 2,775 | 1,639 | 6,951 | 4,881 | 3,064 | 10,209 | 95,469 |
| 1986..... | 143,932 | 48,621 | 18,696 | 2,736 | 1,717 | 7,724 | 4,679 | 2,937 | 10,132 | 95,311 |
| 1987..... | 141,655 | 48,759 | 19,300 | 2,684 | 1,531 | 8,011 | 4,437 | 2,838 | 9,958 | 92,896 |
| 1988..... | 145,403 | 49,820 | 19,918 | 2,817 | 1,433 | 8,759 | 4,312 | 2,599 | 9,982 | 95,583 |
| 1989..... | 149,399 | 50,845 | 20,661 | 2,836 | 1,337 | 8,833 | 4,210 | 2,814 | 10,154 | 98,554 |
| 1990..... | 154,025 | 51,230 | 20,726 | 2,754 | 1,218 | 9,176 | 4,080 | 3,025 | 10,251 | 102,795 |
| 1991..... | 156,895 | 50,441 | 20,656 | 2,703 | 1,116 | 8,709 | 3,975 | 2,994 | 10,288 | 106,454 |
| 1992..... | 162,299 | 52,157 | 21,349 | 2,834 | 1,057 | 9,199 | 4,227 | 2,929 | 10,562 | 110,142 |
| 1993..... | 169,753 | 55,454 | 23,570 | 2,794 | 1,006 | 9,773 | 4,381 | 2,928 | 11,002 | 114,299 |
| 1994..... | 176,762 | 57,970 | 24,294 | 3,030 | 994 | 10,128 | 4,515 | 3,287 | 11,722 | 118,792 |
| 1995..... | 179,198 | 58,518 | 23,998 | 2,958 | 1,032 | 10,130 | 4,740 | 3,735 | 11,925 | 120,680 |
| Women | | | | | | | | | | |
| 1985..... | 143,497 | 22,331 | 2,244 | 830 | 521 | 3,053 | 3,327 | 5,417 | 6,939 | 121,166 |
| 1986..... | 145,897 | 23,219 | 2,400 | 913 | 517 | 3,530 | 3,344 | 5,426 | 7,089 | 122,678 |
| 1987..... | 148,877 | 23,844 | 2,770 | 890 | 520 | 3,797 | 3,338 | 5,327 | 7,202 | 125,033 |
| 1988..... | 154,688 | 23,835 | 2,808 | 891 | 487 | 3,841 | 3,244 | 5,326 | 7,238 | 130,853 |
| 1989..... | 161,651 | 25,580 | 3,082 | 1,040 | 482 | 3,996 | 3,313 | 5,838 | 7,829 | 136,071 |
| 1990..... | 170,922 | 26,558 | 3,269 | 1,051 | 378 | 4,151 | 3,447 | 6,283 | 7,979 | 144,364 |
| 1991..... | 181,603 | 27,927 | 3,357 | 1,074 | 383 | 4,247 | 3,431 | 6,808 | 8,627 | 153,676 |
| 1992..... | 191,908 | 28,950 | 3,669 | 1,088 | 368 | 4,121 | 3,658 | 6,923 | 9,123 | 162,958 |
| 1993..... | 201,220 | 30,971 | 4,094 | 1,171 | 391 | 4,327 | 3,731 | 7,484 | 9,773 | 170,249 |
| 1994..... | 212,246 | 33,441 | 4,423 | 1,233 | 424 | 4,222 | 4,171 | 8,285 | 10,683 | 178,805 |
| 1995..... | 220,230 | 35,791 | 4,632 | 1,283 | 451 | 4,365 | 4,329 | 9,397 | 11,334 | 184,439 |
| Percent women: | | | | | | | | | | |
| 1985..... | 50.0 | 31.6 | 10.7 | 23.0 | 24.1 | 30.5 | 40.5 | 63.9 | 40.5 | 55.9 |
| 1986..... | 50.3 | 32.3 | 11.4 | 25.0 | 23.1 | 31.4 | 41.7 | 64.9 | 41.2 | 56.3 |
| 1987..... | 51.2 | 32.8 | 12.6 | 24.9 | 25.4 | 32.2 | 42.9 | 65.2 | 42.0 | 57.4 |
| 1988..... | 51.5 | 32.4 | 12.4 | 24.0 | 25.4 | 30.5 | 42.9 | 67.2 | 42.0 | 57.8 |
| 1989..... | 52.0 | 33.5 | 13.0 | 26.8 | 26.5 | 31.1 | 44.0 | 67.5 | 43.5 | 58.0 |
| 1990..... | 52.6 | 34.1 | 13.6 | 27.6 | 23.7 | 31.1 | 45.8 | 67.5 | 43.8 | 58.4 |
| 1991..... | 53.6 | 35.6 | 14.0 | 28.4 | 25.6 | 32.8 | 46.3 | 69.5 | 45.6 | 59.1 |
| 1992..... | 54.2 | 35.7 | 14.7 | 27.7 | 25.8 | 30.9 | 46.4 | 70.3 | 46.3 | 59.7 |
| 1993..... | 54.2 | 35.8 | 14.8 | 29.5 | 28.0 | 30.7 | 46.0 | 71.9 | 47.0 | 59.8 |
| 1994..... | 54.6 | 36.6 | 15.4 | 28.9 | 29.9 | 29.4 | 48.0 | 71.6 | 47.7 | 60.1 |
| 1995..... | 55.0 | 38.0 | 16.0 | 30.0 | 30.0 | 30.0 | 48.0 | 72.0 | 49.0 | 60.0 |

SOURCES: Tabulations by National Science Foundation/SRS; data from U.S. Department of Education/NCES Survey of Degrees and Other Formal Awards Conferred, and Completions Survey.

Appendix table 4-30. Total doctorate recipients, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents: 1985-1995

Page 1 of 3

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total, all recipients: ¹ | | | | | | | | | | | |
| Total science and engineering..... | 18,935 | 19,437 | 19,894 | 20,933 | 21,731 | 22,867 | 24,019 | 24,673 | 25,441 | 26,202 | 26,515 |
| Sciences..... | 15,769 | 16,061 | 16,182 | 16,746 | 17,188 | 17,973 | 18,804 | 19,235 | 19,743 | 20,380 | 20,508 |
| Physical science..... | 2,934 | 3,120 | 3,238 | 3,350 | 3,261 | 3,524 | 3,625 | 3,780 | 3,699 | 3,977 | 3,840 |
| Earth, atmospheric, and ocean science..... | 599 | 559 | 602 | 695 | 723 | 738 | 815 | 794 | 771 | 824 | 778 |
| Mathematical science..... | 688 | 729 | 740 | 749 | 859 | 892 | 1,039 | 1,058 | 1,146 | 1,118 | 1,190 |
| Computer science..... | 310 | 399 | 450 | 515 | 612 | 705 | 800 | 869 | 880 | 903 | 998 |
| Agricultural science..... | 1,110 | 997 | 976 | 1,015 | 1,086 | 1,174 | 1,073 | 1,063 | 968 | 1,078 | 1,036 |
| Biological science..... | 3,793 | 3,807 | 3,839 | 4,112 | 4,115 | 4,327 | 4,646 | 4,798 | 5,091 | 5,200 | 5,370 |
| Psychology..... | 3,118 | 3,126 | 3,173 | 3,074 | 3,208 | 3,281 | 3,250 | 3,263 | 3,419 | 3,380 | 3,419 |
| Social science..... | 3,217 | 3,324 | 3,164 | 3,236 | 3,324 | 3,332 | 3,556 | 3,610 | 3,769 | 3,900 | 3,877 |
| Engineering..... | 3,166 | 3,376 | 3,712 | 4,187 | 4,543 | 4,894 | 5,215 | 5,438 | 5,698 | 5,822 | 6,007 |
| Non-science and -engineering..... | 12,362 | 12,465 | 12,476 | 12,568 | 12,595 | 13,200 | 13,503 | 14,183 | 14,330 | 14,815 | 15,095 |
| Grand total..... | 31,297 | 31,902 | 32,370 | 33,501 | 34,326 | 36,067 | 37,522 | 38,856 | 39,771 | 41,017 | 41,610 |
| U.S. citizens and permanent residents, total: | | | | | | | | | | | |
| Total science and engineering..... | 14,065 | 14,016 | 14,055 | 14,499 | 14,591 | 15,363 | 15,909 | 15,940 | 16,570 | 18,184 | 18,961 |
| Sciences..... | 12,471 | 12,290 | 12,142 | 12,353 | 12,362 | 13,017 | 13,435 | 13,420 | 13,873 | 15,131 | 15,625 |
| Physical science..... | 2,187 | 2,166 | 2,242 | 2,258 | 2,131 | 2,341 | 2,299 | 2,356 | 2,330 | 2,789 | 2,840 |
| Earth, atmospheric, and ocean science..... | 465 | 427 | 435 | 520 | 547 | 535 | 618 | 541 | 504 | 613 | 593 |
| Mathematical science..... | 418 | 402 | 396 | 386 | 428 | 422 | 518 | 507 | 590 | 657 | 771 |
| Computer science..... | 213 | 249 | 275 | 326 | 396 | 403 | 451 | 489 | 509 | 543 | 617 |
| Agricultural science..... | 726 | 626 | 632 | 610 | 651 | 687 | 620 | 573 | 506 | 616 | 598 |
| Biological science..... | 3,256 | 3,241 | 3,141 | 3,323 | 3,299 | 3,379 | 3,521 | 3,567 | 3,751 | 4,085 | 4,321 |
| Psychology..... | 2,864 | 2,832 | 2,806 | 2,729 | 2,737 | 2,992 | 3,018 | 2,986 | 3,159 | 3,137 | 3,169 |
| Social science..... | 2,342 | 2,347 | 2,215 | 2,201 | 2,173 | 2,258 | 2,390 | 2,401 | 2,524 | 2,691 | 2,716 |
| Engineering..... | 1,594 | 1,726 | 1,913 | 2,146 | 2,229 | 2,346 | 2,474 | 2,520 | 2,697 | 3,053 | 3,336 |
| Non-science and -engineering..... | 10,629 | 10,503 | 10,507 | 10,414 | 10,435 | 11,240 | 11,509 | 12,016 | 12,105 | 12,693 | 12,949 |
| Grand total..... | 24,694 | 24,519 | 24,562 | 24,913 | 25,026 | 26,603 | 27,418 | 27,956 | 28,675 | 30,877 | 31,910 |
| White, non-Hispanic | | | | | | | | | | | |
| Total science and engineering..... | 12,169 | 12,151 | 12,052 | 12,456 | 12,501 | 13,170 | 13,323 | 13,326 | 13,735 | 13,890 | 13,879 |
| Sciences..... | 10,981 | 10,797 | 10,594 | 10,801 | 10,775 | 11,330 | 11,486 | 11,446 | 11,710 | 11,870 | 11,793 |
| Physical science..... | 1,906 | 1,875 | 1,956 | 1,948 | 1,828 | 2,008 | 1,968 | 1,973 | 1,911 | 2,025 | 1,921 |
| Earth, atmospheric, and ocean science..... | 425 | 397 | 394 | 480 | 498 | 494 | 557 | 485 | 455 | 504 | 464 |
| Mathematical science..... | 350 | 343 | 319 | 332 | 369 | 372 | 419 | 425 | 476 | 479 | 535 |
| Computer science..... | 177 | 194 | 229 | 265 | 319 | 339 | 355 | 378 | 410 | 401 | 453 |
| Agricultural science..... | 659 | 557 | 554 | 518 | 570 | 601 | 545 | 493 | 438 | 487 | 473 |
| Biological science..... | 2,913 | 2,888 | 2,759 | 2,966 | 2,904 | 2,975 | 3,041 | 3,068 | 3,146 | 3,108 | 3,116 |
| Psychology..... | 2,591 | 2,548 | 2,516 | 2,445 | 2,453 | 2,648 | 2,652 | 2,636 | 2,805 | 2,731 | 2,715 |
| Social science..... | 1,960 | 1,995 | 1,867 | 1,847 | 1,834 | 1,893 | 1,949 | 1,988 | 2,069 | 2,135 | 2,116 |
| Engineering..... | 1,188 | 1,354 | 1,458 | 1,655 | 1,726 | 1,840 | 1,837 | 1,880 | 2,025 | 2,020 | 2,086 |
| Non-science and -engineering..... | 9,137 | 9,085 | 9,070 | 9,005 | 9,069 | 9,709 | 9,856 | 10,273 | 10,292 | 10,695 | 10,729 |
| Grand total..... | 21,306 | 21,236 | 21,122 | 21,461 | 21,570 | 22,879 | 23,179 | 23,599 | 24,027 | 24,585 | 24,608 |

See explanatory information and SOURCES at end of table.

Appendix table 4-30. Total doctorate recipients, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents : 1985-1995

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| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Asian: | | | | | | | | | | | |
| Total science and engineering..... | 809 | 816 | 925 | 916 | 986 | 1,009 | 1,180 | 1,344 | 1,610 | 2,989 | 3,666 |
| Sciences..... | 528 | 554 | 598 | 584 | 625 | 650 | 775 | 893 | 1,083 | 2,122 | 2,635 |
| Physical science..... | 152 | 147 | 143 | 138 | 156 | 164 | 172 | 226 | 265 | 600 | 751 |
| Earth, atmospheric, and ocean science..... | 19 | 14 | 18 | 14 | 23 | 15 | 17 | 27 | 22 | 89 | 104 |
| Mathematical science..... | 33 | 28 | 41 | 33 | 24 | 27 | 57 | 52 | 79 | 142 | 208 |
| Computer science..... | 17 | 37 | 26 | 44 | 52 | 48 | 66 | 86 | 77 | 117 | 138 |
| Agricultural science..... | 24 | 22 | 38 | 30 | 23 | 32 | 24 | 37 | 29 | 72 | 78 |
| Biological science..... | 151 | 168 | 170 | 171 | 201 | 200 | 261 | 269 | 370 | 720 | 924 |
| Psychology..... | 44 | 42 | 48 | 47 | 55 | 53 | 59 | 59 | 73 | 109 | 121 |
| Social science..... | 88 | 96 | 114 | 107 | 91 | 111 | 119 | 137 | 168 | 273 | 311 |
| Engineering..... | 281 | 262 | 327 | 332 | 361 | 359 | 405 | 451 | 527 | 867 | 1,031 |
| Non-science and -engineering..... | 261 | 245 | 243 | 319 | 282 | 297 | 351 | 417 | 402 | 556 | 634 |
| Grand total..... | 1,070 | 1,061 | 1,168 | 1,235 | 1,268 | 1,306 | 1,531 | 1,761 | 2,012 | 3,545 | 4,300 |
| Black, non-Hispanic: | | | | | | | | | | | |
| Total science and engineering..... | 374 | 339 | 319 | 361 | 366 | 373 | 459 | 407 | 468 | 496 | 557 |
| Sciences..... | 340 | 315 | 294 | 330 | 333 | 333 | 404 | 358 | 418 | 442 | 486 |
| Physical science..... | 27 | 27 | 20 | 34 | 31 | 30 | 31 | 25 | 41 | 46 | 43 |
| Earth, atmospheric, and ocean science..... | 4 | 0 | 2 | 3 | 4 | 3 | 3 | 6 | 4 | 6 | 3 |
| Mathematical science..... | 7 | 6 | 11 | 4 | 8 | 4 | 11 | 4 | 8 | 11 | 5 |
| Computer science..... | 3 | 1 | 2 | 2 | 1 | 1 | 8 | 5 | 6 | 10 | 11 |
| Agricultural science..... | 16 | 16 | 13 | 20 | 14 | 15 | 17 | 14 | 16 | 22 | 17 |
| Biological science..... | 53 | 48 | 60 | 48 | 56 | 50 | 60 | 61 | 74 | 75 | 105 |
| Psychology..... | 105 | 111 | 93 | 105 | 97 | 115 | 130 | 106 | 119 | 124 | 150 |
| Social science..... | 125 | 106 | 93 | 114 | 122 | 115 | 144 | 137 | 150 | 148 | 152 |
| Engineering..... | 34 | 24 | 25 | 31 | 33 | 40 | 55 | 49 | 50 | 54 | 71 |
| Non-science and -engineering..... | 669 | 617 | 591 | 609 | 596 | 676 | 701 | 706 | 809 | 778 | 898 |
| Grand total..... | 1,043 | 956 | 910 | 970 | 962 | 1,049 | 1,160 | 1,113 | 1,277 | 1,274 | 1,455 |
| American Indian: | | | | | | | | | | | |
| Total science and engineering..... | 41 | 52 | 53 | 44 | 53 | 43 | 56 | 69 | 43 | 64 | 69 |
| Sciences..... | 40 | 46 | 46 | 40 | 46 | 39 | 50 | 58 | 41 | 58 | 59 |
| Physical science..... | 3 | 5 | 7 | 6 | 10 | 3 | 10 | 12 | 5 | 6 | 9 |
| Earth, atmospheric, and ocean science..... | 1 | 2 | 0 | 2 | 6 | 1 | 3 | 1 | 4 | 1 | 0 |
| Mathematical science..... | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 1 | 2 | 2 |
| Computer science..... | 0 | 0 | 3 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 0 |
| Agricultural science..... | 4 | 0 | 2 | 6 | 2 | 4 | 4 | 0 | 1 | 1 | 2 |
| Biological science..... | 13 | 17 | 11 | 6 | 7 | 4 | 10 | 13 | 7 | 16 | 15 |
| Psychology..... | 10 | 9 | 16 | 7 | 11 | 19 | 13 | 15 | 15 | 12 | 14 |
| Social science..... | 9 | 12 | 7 | 10 | 8 | 7 | 9 | 13 | 7 | 19 | 17 |
| Engineering..... | 1 | 6 | 7 | 4 | 7 | 4 | 6 | 11 | 2 | 6 | 10 |
| Non-science and -engineering..... | 55 | 47 | 62 | 50 | 41 | 54 | 76 | 80 | 77 | 78 | 79 |
| Grand total..... | 96 | 99 | 115 | 94 | 94 | 97 | 132 | 149 | 120 | 142 | 148 |

See explanatory information and SOURCES at end of table.

Appendix table 4-30. Total doctorate recipients, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents : 1985-1995

Page 3 of 3

| Academic discipline | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Hispanic: | | | | | | | | | | | |
| Total science and engineering..... | 296 | 345 | 357 | 397 | 382 | 468 | 492 | 513 | 542 | 548 | 568 |
| Sciences..... | 274 | 310 | 323 | 334 | 335 | 414 | 432 | 442 | 476 | 482 | 491 |
| Physical science..... | 30 | 41 | 56 | 63 | 59 | 72 | 65 | 72 | 79 | 90 | 73 |
| Earth, atmospheric, and ocean science..... | 6 | 4 | 5 | 7 | 9 | 13 | 16 | 16 | 13 | 8 | 12 |
| Mathematical science..... | 12 | 12 | 11 | 4 | 11 | 10 | 9 | 12 | 16 | 13 | 15 |
| Computer science..... | 6 | 7 | 4 | 2 | 4 | 5 | 12 | 8 | 7 | 7 | 6 |
| Agricultural science..... | 12 | 17 | 15 | 21 | 18 | 23 | 15 | 18 | 20 | 25 | 21 |
| Biological science..... | 59 | 66 | 62 | 76 | 71 | 89 | 95 | 102 | 114 | 131 | 126 |
| Psychology..... | 69 | 90 | 95 | 93 | 93 | 109 | 122 | 133 | 131 | 133 | 145 |
| Social science..... | 80 | 73 | 75 | 68 | 70 | 93 | 98 | 81 | 96 | 75 | 93 |
| Engineering..... | 22 | 35 | 34 | 63 | 47 | 54 | 60 | 71 | 66 | 66 | 77 |
| Non-science and -engineering..... | 338 | 334 | 351 | 296 | 312 | 369 | 375 | 396 | 431 | 481 | 487 |
| Grand total..... | 634 | 679 | 708 | 693 | 694 | 837 | 867 | 909 | 973 | 1,029 | 1,055 |
| U.S. citizens and permanent residents, unknown race/ethnicity | | | | | | | | | | | |
| Total science and engineering..... | 376 | 313 | 349 | 325 | 303 | 300 | 399 | 281 | 172 | 197 | 222 |
| Sciences..... | 308 | 268 | 287 | 264 | 248 | 251 | 288 | 223 | 145 | 157 | 161 |
| Physical science..... | 69 | 71 | 60 | 69 | 47 | 64 | 53 | 48 | 29 | 22 | 43 |
| Earth, atmospheric, and ocean science..... | 10 | 10 | 16 | 14 | 7 | 9 | 22 | 6 | 6 | 5 | 10 |
| Mathematical science..... | 16 | 12 | 14 | 11 | 16 | 8 | 22 | 12 | 10 | 10 | 6 |
| Computer science..... | 10 | 10 | 11 | 12 | 18 | 10 | 9 | 10 | 8 | 7 | 9 |
| Agricultural science..... | 11 | 14 | 10 | 15 | 24 | 12 | 15 | 11 | 2 | 9 | 7 |
| Biological science..... | 67 | 54 | 79 | 56 | 60 | 61 | 54 | 54 | 40 | 35 | 35 |
| Psychology..... | 45 | 32 | 38 | 32 | 28 | 48 | 42 | 37 | 16 | 28 | 24 |
| Social science..... | 80 | 65 | 59 | 55 | 48 | 39 | 71 | 45 | 34 | 41 | 27 |
| Engineering..... | 68 | 45 | 62 | 61 | 55 | 49 | 111 | 58 | 27 | 40 | 61 |
| Non-science and -engineering..... | 169 | 175 | 190 | 135 | 135 | 135 | 150 | 144 | 94 | 105 | 122 |
| Grand total..... | 545 | 488 | 539 | 460 | 438 | 435 | 549 | 425 | 266 | 302 | 344 |
| Nonresident alien:² | | | | | | | | | | | |
| Total science and engineering..... | 4,047 | 4,160 | 4,468 | 4,936 | 5,391 | 6,571 | 7,642 | 8,092 | 8,113 | 7,521 | 6,992 |
| Sciences..... | 2,628 | 2,788 | 2,936 | 3,215 | 3,451 | 4,294 | 5,008 | 5,349 | 5,329 | 4,868 | 4,469 |
| Physical science..... | 624 | 767 | 801 | 870 | 890 | 1,073 | 1,257 | 1,346 | 1,263 | 1,107 | 930 |
| Earth, atmospheric, and ocean science..... | 115 | 97 | 122 | 132 | 122 | 171 | 185 | 236 | 235 | 197 | 172 |
| Mathematical science..... | 238 | 272 | 302 | 305 | 346 | 424 | 506 | 511 | 517 | 448 | 382 |
| Computer science..... | 89 | 123 | 143 | 176 | 178 | 271 | 340 | 365 | 348 | 343 | 365 |
| Agricultural science..... | 354 | 320 | 289 | 345 | 355 | 440 | 435 | 472 | 447 | 453 | 429 |
| Biological science..... | 424 | 391 | 492 | 557 | 608 | 853 | 1,059 | 1,159 | 1,246 | 1,058 | 971 |
| Psychology..... | 81 | 81 | 85 | 84 | 106 | 117 | 133 | 156 | 148 | 151 | 162 |
| Social science..... | 703 | 737 | 702 | 746 | 846 | 945 | 1,093 | 1,104 | 1,125 | 1,111 | 1,058 |
| Engineering..... | 1,419 | 1,372 | 1,532 | 1,721 | 1,940 | 2,277 | 2,634 | 2,743 | 2,784 | 2,653 | 2,523 |
| Non-science and -engineering..... | 1,180 | 1,116 | 1,144 | 1,259 | 1,257 | 1,522 | 1,670 | 1,861 | 1,821 | 1,885 | 1,814 |
| Grand total..... | 5,227 | 5,276 | 5,612 | 6,195 | 6,648 | 8,093 | 9,312 | 9,953 | 9,934 | 9,406 | 8,806 |

¹ Total includes persons of unknown citizenship.² Nonresident aliens include foreign citizens on temporary visas only.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-31. Total doctorate recipients, by major field and sex: 1985-1995

Page 1 of 1

| Year | Total, Science and Engineer- ing | Engineering | Sciences | | | | | | | | | Grand total, all fields |
|-----------------------------------|--|-------------|-------------------|----------------------|---|------------------|---------------------|---|------------|--------------------|--------|-------------------------------|
| | | | Total sciences | Physical sciences | Earth, atmospheric, and ocean sciences | Mathe- matics | Computer science | Biological/ agricultural sciences | Psychology | Social sciences | | |
| Total | | | | | | | | | | | | |
| 1985..... | 18,935 | 3,166 | 15,769 | 2,934 | 599 | 688 | 310 | 4,903 | 3,118 | 3,217 | 12,362 | 31,297 |
| 1986..... | 19,437 | 3,376 | 16,061 | 3,120 | 559 | 729 | 399 | 4,804 | 3,126 | 3,324 | 12,465 | 31,902 |
| 1987..... | 19,894 | 3,712 | 16,182 | 3,238 | 602 | 740 | 450 | 4,815 | 3,173 | 3,164 | 12,476 | 32,370 |
| 1988..... | 20,933 | 4,187 | 16,746 | 3,350 | 695 | 749 | 515 | 5,127 | 3,074 | 3,236 | 12,568 | 33,501 |
| 1989..... | 21,731 | 4,543 | 17,188 | 3,261 | 723 | 859 | 612 | 5,201 | 3,208 | 3,324 | 12,595 | 34,326 |
| 1990..... | 22,867 | 4,894 | 17,973 | 3,524 | 738 | 892 | 705 | 5,501 | 3,281 | 3,332 | 13,200 | 36,067 |
| 1991..... | 24,019 | 5,215 | 18,804 | 3,625 | 815 | 1,039 | 800 | 5,719 | 3,250 | 3,556 | 13,503 | 37,522 |
| 1992..... | 24,673 | 5,438 | 19,235 | 3,780 | 794 | 1,058 | 869 | 5,861 | 3,263 | 3,610 | 14,183 | 38,856 |
| 1993..... | 25,441 | 5,698 | 19,743 | 3,699 | 771 | 1,146 | 880 | 6,059 | 3,419 | 3,769 | 14,330 | 39,771 |
| 1994..... | 26,202 | 5,822 | 20,380 | 3,977 | 824 | 1,118 | 903 | 6,278 | 3,380 | 3,900 | 14,815 | 41,017 |
| 1995..... | 26,515 | 6,007 | 20,508 | 3,840 | 778 | 1,190 | 998 | 6,406 | 3,419 | 3,877 | 15,095 | 41,610 |
| Women | | | | | | | | | | | | |
| 1985..... | 4,891 | 198 | 4,693 | 467 | 108 | 106 | 33 | 1,409 | 1,541 | 1,029 | 5,853 | 10,744 |
| 1986..... | 5,167 | 225 | 4,942 | 510 | 95 | 121 | 48 | 1,452 | 1,599 | 1,117 | 6,140 | 11,307 |
| 1987..... | 5,312 | 242 | 5,070 | 528 | 112 | 125 | 65 | 1,531 | 1,698 | 1,011 | 6,120 | 11,432 |
| 1988..... | 5,662 | 286 | 5,376 | 567 | 135 | 121 | 56 | 1,691 | 1,681 | 1,125 | 6,157 | 11,819 |
| 1989..... | 6,109 | 375 | 5,734 | 619 | 148 | 155 | 108 | 1,769 | 1,800 | 1,135 | 6,404 | 12,513 |
| 1990..... | 6,369 | 415 | 5,954 | 661 | 141 | 158 | 110 | 1,860 | 1,913 | 1,111 | 6,736 | 13,105 |
| 1991..... | 6,931 | 467 | 6,464 | 679 | 179 | 199 | 117 | 1,981 | 1,996 | 1,313 | 6,939 | 13,870 |
| 1992..... | 7,080 | 506 | 6,574 | 770 | 188 | 205 | 120 | 2,064 | 1,928 | 1,299 | 7,340 | 14,420 |
| 1993..... | 7,652 | 522 | 7,130 | 780 | 160 | 264 | 138 | 2,278 | 2,088 | 1,422 | 7,461 | 15,113 |
| 1994..... | 7,919 | 635 | 7,284 | 828 | 183 | 236 | 137 | 2,355 | 2,102 | 1,443 | 7,887 | 15,806 |
| 1995..... | 8,273 | 694 | 7,579 | 878 | 170 | 265 | 186 | 2,442 | 2,172 | 1,466 | 8,060 | 16,333 |
| Women as a percent of total | | | | | | | | | | | | |
| 1985..... | 25.8 | 6.3 | 29.8 | 15.9 | 18.0 | 15.4 | 10.6 | 28.7 | 49.4 | 32.0 | 47.3 | 34.3 |
| 1986..... | 26.6 | 6.7 | 30.8 | 16.3 | 17.0 | 16.6 | 12.0 | 30.2 | 51.2 | 33.6 | 49.3 | 35.4 |
| 1987..... | 26.7 | 6.5 | 31.3 | 16.3 | 18.6 | 16.9 | 14.4 | 31.8 | 53.5 | 32.0 | 49.1 | 35.3 |
| 1988..... | 27.0 | 6.8 | 32.1 | 16.9 | 19.4 | 16.2 | 10.9 | 33.0 | 54.7 | 34.8 | 49.0 | 35.3 |
| 1989..... | 28.1 | 8.3 | 33.4 | 19.0 | 20.5 | 18.0 | 17.6 | 34.0 | 56.1 | 34.1 | 50.8 | 36.5 |
| 1990..... | 27.9 | 8.5 | 33.1 | 18.8 | 19.1 | 17.7 | 15.6 | 33.8 | 58.3 | 33.3 | 51.0 | 36.3 |
| 1991..... | 28.9 | 9.0 | 34.4 | 18.7 | 22.0 | 19.2 | 14.6 | 34.6 | 61.4 | 36.9 | 51.4 | 37.0 |
| 1992..... | 28.7 | 9.3 | 34.2 | 20.4 | 23.7 | 19.4 | 13.8 | 35.2 | 59.1 | 36.0 | 51.8 | 37.1 |
| 1993..... | 30.1 | 9.2 | 36.1 | 21.1 | 20.8 | 23.0 | 15.7 | 37.6 | 61.1 | 37.7 | 52.1 | 38.0 |
| 1994..... | 30.2 | 10.9 | 35.7 | 20.8 | 22.2 | 21.1 | 15.2 | 37.5 | 62.2 | 37.0 | 53.2 | 38.5 |
| 1995..... | 31.2 | 11.6 | 37.0 | 22.9 | 21.9 | 22.3 | 18.6 | 38.1 | 63.5 | 37.8 | 53.4 | 39.3 |

¹ NonS&E doctorates include those whose field of specialization is unknown.

NOTES: Categories differ from those published by other Federal sponsors and the National Research Council because linguistics, history of science, American studies, and archaeology are included in social sciences rather than in humanities.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates 1995.

Appendix table 4-32. Total doctorate recipients, by detailed field and sex: 1995

| Field of study | Total | Men | Women | Percent women |
|---|--------|--------|-------|---------------|
| Science and engineering, total..... | 26,515 | 18,242 | 8,273 | 31.2 |
| Engineering, total..... | 6,007 | 5,313 | 694 | 11.6 |
| Aeronautical/astronautical engineering..... | 251 | 237 | 14 | 5.6 |
| Chemical engineering..... | 708 | 599 | 109 | 15.4 |
| Chemical..... | 602 | 506 | 96 | 15.9 |
| Petroleum..... | 48 | 47 | 1 | 2.1 |
| Polymer/plastics..... | 58 | 46 | 12 | 20.7 |
| Civil engineering..... | 656 | 580 | 76 | 11.6 |
| Civil..... | 572 | 517 | 55 | 9.6 |
| Environmental health..... | 84 | 63 | 21 | 25.0 |
| Electrical engineering..... | 1,731 | 1,558 | 173 | 10.0 |
| Communications..... | 29 | 24 | 5 | 17.2 |
| Computer..... | 189 | 171 | 18 | 9.5 |
| Electrical/electronics..... | 1,513 | 1,363 | 150 | 9.9 |
| Industrial/manufacturing engineering..... | 283 | 233 | 50 | 17.7 |
| Materials/metallurgical engineering..... | 588 | 494 | 94 | 16.0 |
| Ceramic sciences..... | 39 | 34 | 5 | 12.8 |
| Materials science..... | 476 | 392 | 84 | 17.6 |
| Metallurgical..... | 73 | 68 | 5 | 6.8 |
| Mechanical engineering..... | 1,024 | 961 | 63 | 6.2 |
| Mechanical..... | 916 | 861 | 55 | 6.0 |
| Engineering mechanics..... | 108 | 100 | 8 | 7.4 |
| Other engineering..... | 766 | 651 | 115 | 15.0 |
| Agricultural..... | 73 | 66 | 7 | 9.6 |
| Bioengineering/biomedical..... | 189 | 141 | 48 | 25.4 |
| Engineering physics..... | 17 | 16 | 1 | 5.9 |
| Engineering science..... | 56 | 50 | 6 | 10.7 |
| Mining/mineral..... | 19 | 19 | 0 | 0.0 |
| Nuclear..... | 105 | 96 | 9 | 8.6 |
| Ocean..... | 21 | 18 | 3 | 14.3 |
| Operations research..... | 48 | 40 | 8 | 16.7 |
| Systems..... | 47 | 42 | 5 | 10.6 |
| Engineering, general..... | 60 | 51 | 9 | 15.0 |
| Engineering, other..... | 131 | 112 | 19 | 14.5 |
| Sciences, total..... | 20,508 | 12,929 | 7,579 | 37.0 |
| Physical sciences, total..... | 3,840 | 2,962 | 878 | 22.9 |
| Astronomy..... | 173 | 143 | 30 | 17.3 |
| Astronomy..... | 89 | 71 | 18 | 20.2 |
| Astrophysics..... | 84 | 72 | 12 | 14.3 |
| Chemistry..... | 2,161 | 1,500 | 661 | 30.6 |
| Analytical..... | 317 | 208 | 109 | 34.4 |
| Inorganic..... | 257 | 165 | 92 | 35.8 |
| Medicinal/pharmaceutical..... | 96 | 64 | 32 | 33.3 |
| Nuclear..... | 5 | 2 | 3 | 60.0 |
| Organic..... | 483 | 349 | 134 | 27.7 |
| Physical..... | 338 | 245 | 93 | 27.5 |
| Polymer..... | 116 | 88 | 28 | 24.1 |
| Theoretical..... | 40 | 30 | 10 | 25.0 |
| Chemistry, general..... | 458 | 323 | 135 | 29.5 |
| Chemistry, other..... | 51 | 26 | 25 | 49.0 |

See explanatory information and SOURCES at end of table.

Appendix table 4-32. Total doctorate recipients, by detailed field and sex: 1995

| Field of study | Total | Men | Women | Page 2 of 5 Percent women |
|--|-------|-------|-------|------------------------------|
| Physics..... | 1,479 | 1,297 | 182 | 12.3 |
| Acoustics..... | 18 | 15 | 3 | 16.7 |
| Chemical and atomic/molecular..... | 110 | 95 | 15 | 13.6 |
| Elementary particle..... | 183 | 176 | 7 | 3.8 |
| Fluids..... | 18 | 18 | 0 | 0.0 |
| Nuclear..... | 91 | 79 | 12 | 13.2 |
| Optics..... | 98 | 85 | 13 | 13.3 |
| Plasma and high temperature..... | 46 | 41 | 5 | 10.9 |
| Polymer..... | 23 | 20 | 3 | 13.0 |
| Solid state and low temperature..... | 371 | 314 | 57 | 15.4 |
| Physics, general..... | 355 | 314 | 41 | 11.5 |
| Physics, other..... | 166 | 140 | 26 | 15.7 |
| Other physical sciences..... | 27 | 22 | 5 | 18.5 |
| Earth, atmospheric, and ocean sciences, total..... | 778 | 608 | 170 | 21.9 |
| Atmospheric sciences..... | 130 | 107 | 23 | 17.7 |
| Atmospheric dynamics..... | 16 | 13 | 3 | 18.8 |
| Atmospheric physics/chemistry..... | 27 | 19 | 8 | 29.6 |
| Meteorology..... | 25 | 22 | 3 | 12.0 |
| Atmospheric science/meteorology, general..... | 44 | 37 | 7 | 15.9 |
| Atmospheric science/meteorology, other..... | 18 | 16 | 2 | 11.1 |
| Geosciences..... | 454 | 363 | 91 | 20.0 |
| Geology..... | 186 | 148 | 38 | 20.4 |
| Geochemistry..... | 42 | 32 | 10 | 23.8 |
| Geomorphology/glacial geology..... | 11 | 7 | 4 | 36.4 |
| Geophysics/seismology..... | 93 | 74 | 19 | 20.4 |
| Hydrology/water resources..... | 24 | 20 | 4 | 16.7 |
| Mineralogy/petrology..... | 19 | 15 | 4 | 21.1 |
| Paleontology..... | 20 | 17 | 3 | 15.0 |
| Stratigraphy/sedimentation..... | 16 | 15 | 1 | 6.3 |
| Geological and related sciences, general..... | 21 | 17 | 4 | 19.0 |
| Geological and related sciences, other..... | 22 | 18 | 4 | 18.2 |
| Oceanography..... | 114 | 86 | 28 | 24.6 |
| Marine sciences..... | 31 | 23 | 8 | 25.8 |
| Oceanography..... | 83 | 63 | 20 | 24.1 |
| Other environmental sciences..... | 80 | 52 | 28 | 35.0 |
| Mathematical/computer sciences, total..... | 2,188 | 1,737 | 451 | 20.6 |
| Mathematics, total..... | 1,190 | 925 | 265 | 22.3 |
| Algebra..... | 82 | 58 | 24 | 29.3 |
| Analysis/functional analysis..... | 99 | 81 | 18 | 18.2 |
| Applied mathematics..... | 211 | 164 | 47 | 22.3 |
| Computing theory..... | 14 | 12 | 2 | 14.3 |
| Geometry..... | 45 | 37 | 8 | 17.8 |
| Logic..... | 35 | 28 | 7 | 20.0 |
| Mathematical statistics..... | 205 | 151 | 54 | 26.3 |
| Number theory..... | 35 | 26 | 9 | 25.7 |
| Operations research..... | 36 | 31 | 5 | 13.9 |
| Topology..... | 51 | 43 | 8 | 15.7 |
| Mathematics, general..... | 305 | 241 | 64 | 21.0 |
| Mathematics, other..... | 72 | 53 | 19 | 26.4 |

See explanatory information and SOURCES at end of table.

Appendix table 4-32. Total doctorate recipients, by detailed field and sex: 1995

| Field of study | Total | Men | Women | Percent women |
|--|-------|-------|-------|------------------|
| Computer sciences, total..... | 998 | 812 | 186 | 18.6 |
| Computer science..... | 914 | 754 | 160 | 17.5 |
| Information science/systems..... | 84 | 58 | 26 | 31.0 |
| Biological/agricultural sciences, total..... | 6,406 | 3,964 | 2,442 | 38.1 |
| Biological sciences, total..... | 5,370 | 3,156 | 2,214 | 41.2 |
| Bacteriology..... | 13 | 7 | 6 | 46.2 |
| Biochemistry..... | 825 | 483 | 342 | 41.5 |
| Biomedical sciences..... | 93 | 52 | 41 | 44.1 |
| Biophysics..... | 154 | 109 | 45 | 29.2 |
| Biotechnology research..... | 4 | 2 | 2 | 50.0 |
| Plant genetics..... | 35 | 23 | 12 | 34.3 |
| Plant pathology..... | 32 | 22 | 10 | 31.3 |
| Plant physiology..... | 55 | 34 | 21 | 38.2 |
| Botany, other..... | 102 | 68 | 34 | 33.3 |
| Anatomy..... | 65 | 39 | 26 | 40.0 |
| Biometrics/biostatistics..... | 67 | 44 | 23 | 34.3 |
| Cell biology..... | 236 | 119 | 117 | 49.6 |
| Developmental biology/embryology..... | 64 | 34 | 30 | 46.9 |
| Ecology..... | 203 | 139 | 64 | 31.5 |
| Endocrinology..... | 20 | 14 | 6 | 30.0 |
| Entomology..... | 121 | 94 | 27 | 22.3 |
| Biological immunology..... | 191 | 109 | 82 | 42.9 |
| Microbiology..... | 426 | 238 | 188 | 44.1 |
| Molecular biology..... | 618 | 352 | 266 | 43.0 |
| Neuroscience..... | 305 | 186 | 119 | 39.0 |
| Nutritional sciences..... | 136 | 44 | 92 | 67.6 |
| Parasitology..... | 14 | 7 | 7 | 50.0 |
| Toxicology..... | 123 | 75 | 48 | 39.0 |
| Human/animal genetics..... | 202 | 110 | 92 | 45.5 |
| Human/animal pathology..... | 109 | 71 | 38 | 34.9 |
| Human/animal pharmacology..... | 274 | 147 | 127 | 46.4 |
| Human/animal physiology..... | 262 | 159 | 103 | 39.3 |
| Zoology, other..... | 145 | 95 | 50 | 34.5 |
| Biological sciences, general..... | 350 | 201 | 149 | 42.6 |
| Biological sciences, other..... | 126 | 79 | 47 | 37.3 |
| Agricultural sciences, total..... | 1,036 | 808 | 228 | 22.0 |
| Agronomy and crop science..... | 114 | 101 | 13 | 11.4 |
| Animal breeding/genetics..... | 19 | 18 | 1 | 5.3 |
| Animal nutrition..... | 50 | 41 | 9 | 18.0 |
| Dairy science..... | 14 | 11 | 3 | 21.4 |
| Poultry science..... | 11 | 11 | 0 | 0.0 |
| Animal sciences, other..... | 85 | 66 | 19 | 22.4 |
| Fisheries science & management..... | 49 | 40 | 9 | 18.4 |
| Wildlife/range management..... | 50 | 42 | 8 | 16.0 |
| Food engineering..... | 7 | 7 | 0 | 0.0 |
| Food sciences, other..... | 135 | 81 | 54 | 40.0 |
| Forest biology..... | 24 | 19 | 5 | 20.8 |
| Forest engineering..... | 4 | 4 | 0 | 0.0 |

See explanatory information and SOURCES at end of table.

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Appendix table 4-32. Total doctorate recipients, by detailed field and sex: 1995

| Field of study | Total | Men | Women | Page 4 of 5 Percent women |
|---|-------|-------|-------|------------------------------|
| Forest management | 20 | 14 | 6 | 30.0 |
| Wood science and pulp/paper technology..... | 25 | 19 | 6 | 24.0 |
| Conservation/renewable natural resources..... | 24 | 19 | 5 | 20.8 |
| Forestry and related sciences, other..... | 72 | 59 | 13 | 18.1 |
| Horticulture science..... | 67 | 45 | 22 | 32.8 |
| Plant breeding/genetics..... | 72 | 57 | 15 | 20.8 |
| Plant pathology..... | 52 | 43 | 9 | 17.3 |
| Plant sciences, other..... | 30 | 27 | 3 | 10.0 |
| Soil chemistry/microbiology..... | 27 | 22 | 5 | 18.5 |
| Soil sciences, other..... | 72 | 54 | 18 | 25.0 |
| Agricultural sciences, general..... | 6 | 3 | 3 | 50.0 |
| Agricultural sciences, other..... | 7 | 5 | 2 | 28.6 |
| Psychology, total..... | 3,419 | 1,247 | 2,172 | 63.5 |
| Clinical..... | 1,292 | 425 | 867 | 67.1 |
| Cognitive psychology and psycholinguistics..... | 104 | 52 | 52 | 50.0 |
| Comparative..... | 4 | 3 | 1 | 25.0 |
| Counseling..... | 470 | 173 | 297 | 63.2 |
| Developmental and child..... | 153 | 31 | 122 | 79.7 |
| Educational..... | 74 | 21 | 53 | 71.6 |
| Experimental..... | 151 | 68 | 83 | 55.0 |
| Family and marriage counseling..... | 51 | 16 | 35 | 68.6 |
| Industrial/organizational..... | 145 | 61 | 84 | 57.9 |
| Physiological/psychobiology..... | 93 | 58 | 35 | 37.6 |
| Quantitative..... | 13 | 4 | 9 | 69.2 |
| Personality..... | 16 | 7 | 9 | 56.3 |
| Psychometrics..... | 10 | 6 | 4 | 40.0 |
| School | 91 | 29 | 62 | 68.1 |
| Social..... | 155 | 71 | 84 | 54.2 |
| Psychology, general..... | 307 | 121 | 186 | 60.6 |
| Psychology, other..... | 290 | 101 | 189 | 65.2 |
| Social sciences, total ¹ | 3,877 | 2,411 | 1,466 | 37.8 |
| Economics..... | 1,153 | 875 | 278 | 24.1 |
| Agricultural economics..... | 173 | 131 | 42 | 24.3 |
| Econometrics..... | 26 | 22 | 4 | 15.4 |
| Economics..... | 954 | 722 | 232 | 24.3 |
| Political science..... | 893 | 627 | 266 | 29.8 |
| International relations and affairs..... | 72 | 51 | 21 | 29.2 |
| Political science/government | 600 | 433 | 167 | 27.8 |
| Public administration..... | 129 | 86 | 43 | 33.3 |
| Public policy analysis..... | 92 | 57 | 35 | 38.0 |

See explanatory information and SOURCES at end of table.

Appendix table 4-32. Total doctorate recipients, by detailed field and sex: 1995

| Field of study | Total | Men | Women | Page 5 of 5 |
|---|---------------|---------------|---------------|---------------|
| | | | | Percent women |
| Sociology..... | 554 | 260 | 294 | 53.1 |
| Demography/population studies..... | 15 | 9 | 6 | 40.0 |
| Sociology..... | 539 | 251 | 288 | 53.4 |
| Other social sciences..... | 1,277 | 649 | 628 | 49.2 |
| American studies..... | 94 | 41 | 53 | 56.4 |
| Anthropology..... | 375 | 156 | 219 | 58.4 |
| Archaeology..... | 35 | 17 | 18 | 51.4 |
| Area studies..... | 27 | 15 | 12 | 44.4 |
| Criminology..... | 44 | 21 | 23 | 52.3 |
| Geography..... | 150 | 107 | 43 | 28.7 |
| History/philosophy of science and technology..... | 41 | 23 | 18 | 43.9 |
| Linguistics..... | 201 | 99 | 102 | 50.7 |
| Statistics..... | 48 | 37 | 11 | 22.9 |
| Urban affairs and studies..... | 103 | 66 | 37 | 35.9 |
| Social sciences, general | 35 | 12 | 23 | 65.7 |
| Social sciences, other..... | 124 | 55 | 69 | 55.6 |
| NonS&E, total ² | 15,095 | 7,035 | 8,060 | 53.4 |
| Health..... | 1,331 | 487 | 844 | 63.4 |
| Humanities ¹ | 4,690 | 2,436 | 2,254 | 48.1 |
| Education..... | 6,546 | 2,514 | 4,032 | 61.6 |
| Professional/other..... | 2,528 | 1,598 | 930 | 36.8 |
| Grand total, all fields..... | 41,610 | 25,277 | 16,333 | 39.3 |

¹ Categories differ from those published by other Federal sponsors and the National Research Council because linguistics, history of science, American studies, and archaeology are included in social sciences rather than in humanities.

² Non-science and -engineering doctorates include those whose field of specialization is unknown.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates 1995.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-33. The top 50 institutions granting science and engineering doctorates to women, and women as a percentage of recipients, by institution: 1995

Page 1 of 1

| Academic institution | Science and engineering | | | Science | | | Engineering | | |
|--|-------------------------|-------|------------------|---------|-------|------------------|-------------|-------|------------------|
| | Total | Women | Percentage women | Total | Women | Percentage women | Total | Women | Percentage women |
| University of California-Berkeley..... | 608 | 170 | 28.0 | 430 | 144 | 33.5 | 178 | 26 | 14.6 |
| University of California-Los Angeles..... | 435 | 147 | 33.8 | 350 | 137 | 39.1 | 85 | 10 | 11.8 |
| University of Wisconsin-Madison..... | 531 | 143 | 26.9 | 420 | 127 | 30.2 | 111 | 16 | 14.4 |
| Cornell University, all campuses..... | 430 | 142 | 33.0 | 342 | 123 | 36.0 | 88 | 19 | 21.6 |
| University of Michigan at Ann Arbor..... | 472 | 134 | 28.4 | 294 | 113 | 38.4 | 178 | 21 | 11.8 |
| University of Illinois at Urbana-Champaign..... | 519 | 123 | 23.7 | 362 | 106 | 29.3 | 157 | 17 | 10.8 |
| University of Minnesota-Twin Cities..... | 439 | 121 | 27.6 | 326 | 112 | 34.4 | 113 | 9 | 8.0 |
| Ohio State University, main campus..... | 425 | 114 | 26.8 | 323 | 104 | 32.2 | 102 | 10 | 9.8 |
| Stanford University..... | 466 | 110 | 23.6 | 259 | 71 | 27.4 | 207 | 39 | 18.8 |
| Pennsylvania State University, main campus..... | 401 | 109 | 27.2 | 241 | 90 | 37.3 | 160 | 19 | 11.9 |
| Subtotal, first 10 institutions..... | 4,726 | 1,313 | 27.8 | 3,347 | 1,127 | 33.7 | 1,379 | 186 | 13.5 |
| University of Texas at Austin..... | 458 | 109 | 23.8 | 284 | 97 | 34.2 | 174 | 12 | 6.9 |
| University of Pennsylvania..... | 318 | 108 | 34.0 | 265 | 96 | 36.2 | 53 | 12 | 22.6 |
| Harvard University..... | 297 | 103 | 34.7 | 287 | 101 | 35.2 | 10 | 2 | 20.0 |
| University of Maryland at College Park..... | 320 | 101 | 31.6 | 216 | 86 | 39.8 | 104 | 15 | 14.4 |
| Northwestern University..... | 252 | 99 | 39.3 | 177 | 86 | 48.6 | 75 | 13 | 17.3 |
| University of California-Davis..... | 302 | 98 | 32.5 | 255 | 95 | 37.3 | 47 | 3 | 6.4 |
| Michigan State University..... | 283 | 97 | 34.3 | 247 | 91 | 36.8 | 36 | 6 | 16.7 |
| University of Southern California..... | 308 | 94 | 30.5 | 208 | 84 | 40.4 | 100 | 10 | 10.0 |
| Purdue University, main campus..... | 399 | 91 | 22.8 | 259 | 81 | 31.3 | 140 | 10 | 7.1 |
| University of Washington..... | 332 | 91 | 27.4 | 252 | 79 | 31.3 | 80 | 12 | 15.0 |
| Subtotal, first 20 institutions..... | 7,995 | 2,304 | 28.8 | 5,797 | 2,023 | 34.9 | 2,198 | 281 | 12.8 |
| Massachusetts Institute of Technology..... | 486 | 90 | 18.5 | 250 | 55 | 22.0 | 236 | 35 | 14.8 |
| Columbia University in the City of New York..... | 281 | 87 | 31.0 | 248 | 79 | 31.9 | 33 | 8 | 24.2 |
| University of North Carolina at Chapel Hill..... | 227 | 87 | 38.3 | 219 | 84 | 38.4 | 8 | 3 | 37.5 |
| Rutgers The State University of NJ New Brunswick..... | 260 | 86 | 33.1 | 205 | 81 | 39.5 | 55 | 5 | 9.1 |
| Texas A&M University, main campus..... | 432 | 85 | 19.7 | 307 | 74 | 24.1 | 125 | 11 | 8.8 |
| University of Colorado at Boulder..... | 267 | 82 | 30.7 | 177 | 74 | 41.8 | 90 | 8 | 8.9 |
| University of Florida..... | 289 | 81 | 28.0 | 204 | 78 | 38.2 | 85 | 3 | 3.5 |
| Yale University..... | 222 | 76 | 34.2 | 203 | 73 | 36.0 | 19 | 3 | 15.8 |
| University of California-San Diego..... | 227 | 72 | 31.7 | 192 | 68 | 35.4 | 35 | 4 | 11.4 |
| University of Chicago..... | 241 | 69 | 28.6 | 240 | 68 | 28.3 | 1 | 1 | 100.0 |
| Subtotal, first 30 institutions..... | 10,927 | 3,119 | 28.5 | 8,042 | 2,757 | 34.3 | 2,885 | 362 | 12.5 |
| CUNY Graduate School and University Center..... | 193 | 68 | 35.2 | 178 | 65 | 36.5 | 15 | 3 | 20.0 |
| Indiana University at Bloomington..... | 176 | 65 | 36.9 | 176 | 65 | 36.9 | 0 | 0 | - |
| State University of NY at Stony Brook, all campuses..... | 188 | 65 | 34.6 | 166 | 62 | 37.3 | 22 | 3 | 13.6 |
| University of Connecticut..... | 164 | 65 | 39.6 | 139 | 63 | 45.3 | 25 | 2 | 8.0 |
| University of Georgia..... | 160 | 64 | 40.0 | 160 | 64 | 40.0 | 0 | 0 | - |
| Johns Hopkins University..... | 185 | 63 | 34.1 | 149 | 55 | 36.9 | 36 | 8 | 22.2 |
| University of Arizona..... | 273 | 63 | 23.1 | 217 | 61 | 28.1 | 56 | 2 | 3.6 |
| New York University..... | 159 | 61 | 38.4 | 159 | 61 | 38.4 | 0 | 0 | - |
| North Carolina State University at Raleigh..... | 250 | 60 | 24.0 | 158 | 49 | 31.0 | 92 | 11 | 12.0 |
| University of Cincinnati, all campuses..... | 159 | 60 | 37.7 | 106 | 55 | 51.9 | 53 | 5 | 9.4 |
| Subtotal, first 40 institutions..... | 12,834 | 3,753 | 29.2 | 9,650 | 3,357 | 34.8 | 3,184 | 396 | 12.4 |
| Princeton University..... | 221 | 57 | 25.8 | 173 | 49 | 28.3 | 48 | 8 | 16.7 |
| Temple University..... | 115 | 57 | 49.6 | 111 | 57 | 51.4 | 4 | 0 | - |
| University of Virginia, main campus..... | 185 | 57 | 30.8 | 138 | 51 | 37.0 | 47 | 6 | 12.8 |
| California School Prof Psych at Los Angeles..... | 71 | 56 | 78.9 | 71 | 56 | 78.9 | 0 | 0 | - |
| State University of NY at Buffalo..... | 192 | 56 | 29.2 | 134 | 51 | 38.1 | 58 | 5 | 8.6 |
| California School Prof Psych at San Diego..... | 80 | 55 | 68.8 | 80 | 55 | 68.8 | 0 | 0 | - |
| University of Pittsburgh, main campus..... | 157 | 55 | 35.0 | 120 | 51 | 42.5 | 37 | 4 | 10.8 |
| Duke University..... | 177 | 54 | 30.5 | 141 | 48 | 34.0 | 36 | 6 | 16.7 |
| Iowa State University..... | 260 | 54 | 20.8 | 180 | 44 | 24.4 | 80 | 10 | 12.5 |
| University of Iowa..... | 173 | 54 | 31.2 | 139 | 52 | 37.4 | 34 | 2 | 5.9 |
| Subtotal, first 50 institutions..... | 14,465 | 4,308 | 29.8 | 10,937 | 3,871 | 35.4 | 3,528 | 437 | 12.4 |

KEY: - = cannot be calculated.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995

Appendix table 4-34. Doctorate recipients in science and engineering, by field, primary mechanism of support, and sex: 1995

Page 1 of 1

| Field and primary mechanism of support | Total | | Women | | Men | |
|--|--------|---------|--------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Total, science and engineering | | | | | | |
| All mechanisms..... | 26,515 | 100.0 | 8,273 | 100.0 | 18,242 | 100.0 |
| Fellowship/Traineeship..... | 2,350 | 8.9 | 943 | 11.4 | 1,407 | 7.7 |
| Research assistantship..... | 7,891 | 29.8 | 2,030 | 24.5 | 5,861 | 32.1 |
| Teaching assistantship..... | 3,652 | 13.8 | 1,096 | 13.2 | 2,556 | 14.0 |
| Other sources, unknown..... | 12,622 | 47.6 | 4,204 | 50.8 | 8,418 | 46.1 |
| Physical sciences | | | | | | |
| All mechanisms..... | 3,840 | 100.0 | 878 | 100.0 | 2,962 | 100.0 |
| Fellowship/Traineeship..... | 203 | 5.3 | 61 | 6.9 | 142 | 4.8 |
| Research assistantship..... | 1,679 | 43.7 | 372 | 42.4 | 1,307 | 44.1 |
| Teaching assistantship..... | 661 | 17.2 | 154 | 17.5 | 507 | 17.1 |
| Other sources, unknown..... | 1,297 | 33.8 | 291 | 33.1 | 1,006 | 34.0 |
| Earth, atmospheric and ocean sciences | | | | | | |
| All mechanisms..... | 778 | 100.0 | 170 | 100.0 | 608 | 100.0 |
| Fellowship/Traineeship..... | 39 | 5.0 | 11 | 6.5 | 28 | 4.6 |
| Research assistantship..... | 314 | 40.4 | 70 | 41.2 | 244 | 40.1 |
| Teaching assistantship..... | 77 | 9.9 | 16 | 9.4 | 61 | 10.0 |
| Other sources, unknown..... | 348 | 44.7 | 73 | 42.9 | 275 | 45.2 |
| Mathematical and computer sciences | | | | | | |
| All mechanisms..... | 2,188 | 100.0 | 451 | 100.0 | 1,737 | 100.0 |
| Fellowship/Traineeship..... | 120 | 5.5 | 32 | 7.1 | 88 | 5.1 |
| Research assistantship..... | 449 | 20.5 | 66 | 14.6 | 383 | 22.0 |
| Teaching assistantship..... | 718 | 32.8 | 154 | 34.1 | 564 | 32.5 |
| Other sources, unknown..... | 901 | 41.2 | 199 | 44.1 | 702 | 40.4 |
| Agricultural sciences | | | | | | |
| All mechanisms..... | 1,036 | 100.0 | 228 | 100.0 | 808 | 100.0 |
| Fellowship/Traineeship..... | 51 | 4.9 | 13 | 5.7 | 38 | 4.7 |
| Research assistantship..... | 407 | 39.3 | 83 | 36.4 | 324 | 40.1 |
| Teaching assistantship..... | 33 | 3.2 | 12 | 5.3 | 21 | 2.6 |
| Other sources, unknown..... | 545 | 52.6 | 120 | 52.6 | 425 | 52.6 |
| Biological sciences | | | | | | |
| All mechanisms..... | 5,370 | 100.0 | 2,214 | 100.0 | 3,156 | 100.0 |
| Fellowship/Traineeship..... | 1,001 | 18.6 | 424 | 19.2 | 577 | 18.3 |
| Research assistantship..... | 1,673 | 31.2 | 714 | 32.2 | 959 | 30.4 |
| Teaching assistantship..... | 566 | 10.5 | 224 | 10.1 | 342 | 10.8 |
| Other sources, unknown..... | 2,130 | 39.7 | 852 | 38.5 | 1,278 | 40.5 |
| Psychology | | | | | | |
| All mechanisms..... | 3,419 | 100.0 | 2,172 | 100.0 | 1,247 | 100.0 |
| Fellowship/Traineeship..... | 217 | 6.3 | 140 | 6.4 | 77 | 6.2 |
| Research assistantship..... | 395 | 11.6 | 240 | 11.0 | 155 | 12.4 |
| Teaching assistantship..... | 368 | 10.8 | 219 | 10.1 | 149 | 11.9 |
| Other sources, unknown..... | 2,439 | 71.3 | 1,573 | 72.4 | 866 | 69.4 |
| Social sciences | | | | | | |
| All mechanisms..... | 3,877 | 100.0 | 1,466 | 100.0 | 2,411 | 100.0 |
| Fellowship/Traineeship..... | 437 | 11.3 | 183 | 12.5 | 254 | 10.5 |
| Research assistantship..... | 413 | 10.7 | 159 | 10.8 | 254 | 10.5 |
| Teaching assistantship..... | 781 | 20.1 | 275 | 18.8 | 506 | 21.0 |
| Other sources, unknown..... | 2,246 | 57.9 | 849 | 57.9 | 1,397 | 57.9 |
| Engineering | | | | | | |
| All mechanisms..... | 6,007 | 100.0 | 694 | 100.0 | 5,313 | 100.0 |
| Fellowship/Traineeship..... | 282 | 4.7 | 79 | 11.4 | 203 | 3.8 |
| Research assistantship..... | 2,561 | 42.6 | 326 | 47.0 | 2,235 | 42.1 |
| Teaching assistantship..... | 448 | 7.5 | 42 | 6.1 | 406 | 7.6 |
| Other sources, unknown..... | 2,716 | 45.2 | 247 | 35.6 | 2,469 | 46.5 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995.

Appendix table 4-35. Top 50 institutions that were baccalaureate origins of 1991-1995 female science and engineering doctorate recipients, ranked according to total science and engineering doctorates to women, by field of doctorate

Page 1 of 1

| Rank | Academic Institution | Total S&E | Sciences | | | | | | | | Total engineering |
|------|--|-----------|----------------|-------------------|--|-------------|-------------------|-----------------------------------|------------|-----------------|-------------------|
| | | | Total sciences | Physical sciences | Earth, atmospheric, and ocean sciences | Mathematics | Computer sciences | Agri-cultural/biological sciences | Psychology | Social Sciences | |
| | Total of all academic institutions..... | 37,855 | 35,031 | 3,935 | 880 | 1,169 | 698 | 11,120 | 10,286 | 6,943 | 2,824 |
| 1 | University of California-Berkeley..... | 509 | 458 | 39 | 15 | 11 | 6 | 151 | 119 | 117 | 51 |
| 2 | Cornell University, all campuses..... | 403 | 368 | 37 | 10 | 2 | 6 | 160 | 104 | 49 | 35 |
| 3 | University of Michigan at Ann Arbor..... | 400 | 355 | 20 | 5 | 6 | 2 | 93 | 147 | 82 | 45 |
| 4 | University of Illinois at Urbana-Champaign..... | 349 | 307 | 23 | 11 | 5 | 5 | 130 | 82 | 51 | 42 |
| 5 | University of California-Los Angeles..... | 334 | 321 | 17 | 11 | 2 | 4 | 67 | 168 | 52 | 13 |
| 6 | University of Wisconsin-Madison..... | 329 | 311 | 16 | 9 | 5 | 4 | 108 | 105 | 64 | 18 |
| 7 | Pennsylvania State University, main campus..... | 266 | 232 | 15 | 1 | 4 | 2 | 116 | 54 | 40 | 34 |
| 8 | University of California-Davis..... | 241 | 229 | 11 | 10 | 0 | 2 | 134 | 41 | 31 | 12 |
| 9 | Rutgers the State University of NJ New Brunswick..... | 234 | 219 | 23 | 6 | 5 | 3 | 90 | 65 | 27 | 15 |
| 10 | Massachusetts Institute of Technology..... | 231 | 151 | 43 | 4 | 5 | 14 | 64 | 7 | 14 | 80 |
| 11 | University of Maryland at College Park..... | 230 | 216 | 14 | 3 | 3 | 4 | 75 | 75 | 42 | 14 |
| 12 | Ohio State University, main campus..... | 226 | 212 | 10 | 9 | 2 | 3 | 67 | 68 | 53 | 14 |
| 13 | Michigan State University..... | 218 | 205 | 10 | 5 | 0 | 3 | 78 | 69 | 40 | 13 |
| 14 | Brown University..... | 210 | 199 | 5 | 12 | 3 | 3 | 47 | 88 | 41 | 11 |
| 15 | University of Minnesota-Twin Cities..... | 210 | 198 | 15 | 4 | 0 | 3 | 73 | 55 | 48 | 12 |
| 16 | University of California-San Diego..... | 207 | 190 | 13 | 2 | 6 | 0 | 77 | 57 | 35 | 17 |
| 17 | University of Pennsylvania..... | 206 | 194 | 12 | 1 | 2 | 3 | 52 | 74 | 50 | 12 |
| 18 | Harvard University..... | 203 | 195 | 21 | 8 | 9 | 8 | 57 | 34 | 58 | 8 |
| 19 | University of Texas at Austin..... | 201 | 187 | 8 | 6 | 3 | 1 | 43 | 83 | 43 | 14 |
| 20 | Stanford University..... | 194 | 172 | 9 | 10 | 3 | 2 | 50 | 52 | 46 | 22 |
| 21 | Yale University..... | 184 | 176 | 13 | 6 | 5 | 3 | 52 | 41 | 56 | 8 |
| 22 | University of Colorado at Boulder..... | 180 | 164 | 14 | 5 | 6 | 2 | 47 | 53 | 37 | 16 |
| 23 | Duke University..... | 173 | 159 | 12 | 6 | 1 | 4 | 52 | 61 | 23 | 14 |
| 24 | Indiana University at Bloomington..... | 169 | 167 | 12 | 4 | 1 | 1 | 45 | 60 | 44 | 2 |
| 25 | Princeton University..... | 166 | 142 | 17 | 5 | 5 | 4 | 62 | 18 | 31 | 24 |
| 26 | Purdue University, main campus..... | 164 | 123 | 14 | 3 | 1 | 3 | 57 | 31 | 14 | 41 |
| 27 | University of California-Santa Barbara..... | 163 | 157 | 9 | 8 | 2 | 6 | 51 | 50 | 31 | 6 |
| 28 | University of Washington..... | 160 | 146 | 8 | 1 | 2 | 1 | 50 | 44 | 40 | 14 |
| 29 | Texas A&M University, main campus..... | 159 | 144 | 8 | 11 | 1 | 1 | 79 | 35 | 9 | 15 |
| 30 | University of California-Irvine..... | 159 | 155 | 16 | 1 | 3 | 3 | 45 | 67 | 20 | 4 |
| 31 | University of Florida..... | 155 | 147 | 12 | 2 | 2 | 3 | 43 | 54 | 31 | 8 |
| 32 | Smith College..... | 153 | 153 | 13 | 9 | 7 | 2 | 47 | 39 | 36 | 0 |
| 33 | University of Virginia, main campus..... | 151 | 133 | 11 | 3 | 1 | 1 | 45 | 53 | 19 | 18 |
| 34 | University of Massachusetts at Amherst..... | 145 | 135 | 3 | 6 | 3 | 1 | 46 | 41 | 35 | 10 |
| 35 | State University of New York at Buffalo..... | 138 | 128 | 12 | 4 | 4 | 1 | 30 | 51 | 26 | 10 |
| 36 | University of North Carolina at Chapel Hill..... | 136 | 130 | 12 | 6 | 3 | 2 | 41 | 48 | 18 | 6 |
| 37 | Virginia Polytechnic Institute and State University..... | 136 | 105 | 13 | 3 | 2 | 1 | 53 | 25 | 8 | 31 |
| 38 | Wellesley College..... | 136 | 133 | 10 | 6 | 4 | 2 | 33 | 39 | 39 | 3 |
| 39 | University of Delaware..... | 135 | 123 | 15 | 6 | 1 | 1 | 53 | 26 | 21 | 12 |
| 40 | University of California-Santa Cruz..... | 133 | 131 | 5 | 7 | 1 | 2 | 39 | 39 | 38 | 2 |
| 41 | Barnard College..... | 132 | 131 | 6 | 2 | 1 | 2 | 19 | 57 | 44 | 1 |
| 42 | Boston University..... | 131 | 125 | 7 | 1 | 2 | 1 | 25 | 62 | 27 | 6 |
| 43 | Iowa State University..... | 131 | 120 | 12 | 3 | 2 | 3 | 58 | 23 | 19 | 11 |
| 44 | Oberlin College..... | 131 | 128 | 16 | 5 | 5 | 2 | 26 | 35 | 39 | 3 |
| 45 | State University of New York at Albany..... | 130 | 130 | 6 | 1 | 1 | 3 | 36 | 56 | 27 | 0 |
| 46 | Mount Holyoke College..... | 124 | 121 | 13 | 3 | 5 | 1 | 50 | 27 | 22 | 3 |
| 47 | University of Chicago..... | 124 | 121 | 10 | 6 | 4 | 1 | 34 | 33 | 33 | 3 |
| 48 | University of Rochester..... | 121 | 107 | 8 | 6 | 0 | 0 | 36 | 46 | 11 | 14 |
| 49 | Bryn Mawr College..... | 120 | 115 | 15 | 3 | 8 | 1 | 25 | 19 | 44 | 5 |
| 50 | University of Puerto Rico, Rio Piedras campus..... | 120 | 116 | 22 | 1 | 2 | 1 | 22 | 42 | 26 | 4 |

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates 1995

Table 4-36. Postgraduation plans of science and engineering doctorate recipients who are U.S. citizens and permanent residents, by sex and detailed field: 1995

Page 1 of 2

| Field of study | Total | Total with definite plans | In the United States | | | | | Abroad | Location unknown |
|---|--------|---------------------------|----------------------|---------------------|---------------------|---------------------|-------|--------|------------------|
| | | | Total in U.S. | Post-doctoral study | Academic employment | Industry employment | Other | | |
| Science and engineering, both sexes..... | 18,961 | 11,841 | 11,261 | 4,850 | 2,695 | 2,180 | 1,536 | 554 | 26 |
| Engineering, total..... | 3,336 | 1,904 | 1,831 | 374 | 312 | 889 | 256 | 68 | 5 |
| Aeronautical/astronautical..... | 153 | 83 | 82 | 17 | 8 | 29 | 28 | 1 | 0 |
| Chemical..... | 381 | 242 | 233 | 50 | 25 | 137 | 21 | 9 | 0 |
| Civil..... | 309 | 173 | 166 | 26 | 57 | 55 | 28 | 6 | 1 |
| Electrical..... | 971 | 568 | 551 | 75 | 87 | 326 | 63 | 17 | 0 |
| Industrial..... | 149 | 79 | 71 | 2 | 36 | 26 | 7 | 7 | 1 |
| Materials/metallurgical..... | 351 | 201 | 191 | 71 | 11 | 84 | 25 | 9 | 1 |
| Mechanical..... | 558 | 293 | 284 | 51 | 46 | 155 | 32 | 7 | 2 |
| Other engineering..... | 464 | 265 | 253 | 82 | 42 | 77 | 52 | 12 | 0 |
| Sciences, total..... | 15,625 | 9,937 | 9,430 | 4,476 | 2,383 | 1,291 | 1,280 | 486 | 21 |
| Physical sciences, total..... | 2,840 | 1,767 | 1,645 | 1,021 | 166 | 356 | 102 | 113 | 9 |
| Astronomy..... | 141 | 105 | 93 | 69 | 15 | 4 | 5 | 12 | 0 |
| Chemistry..... | 1,623 | 1,038 | 994 | 608 | 94 | 244 | 48 | 42 | 2 |
| Physics..... | 1,059 | 616 | 551 | 338 | 57 | 107 | 49 | 58 | 7 |
| Other physical sciences..... | 17 | 8 | 7 | 6 | 0 | 1 | 0 | 1 | 0 |
| Earth, atmospheric, and ocean sciences..... | 593 | 343 | 316 | 138 | 63 | 47 | 68 | 27 | 0 |
| Mathematics..... | 771 | 446 | 425 | 98 | 221 | 78 | 28 | 20 | 1 |
| Computer sciences..... | 617 | 393 | 373 | 45 | 143 | 147 | 38 | 19 | 1 |
| Biological sciences..... | 4,321 | 3,023 | 2,884 | 2,313 | 280 | 143 | 148 | 131 | 8 |
| Agricultural sciences..... | 598 | 347 | 318 | 104 | 80 | 85 | 49 | 29 | 0 |
| Psychology..... | 3,169 | 1,932 | 1,906 | 582 | 485 | 294 | 545 | 25 | 1 |
| Social sciences..... | 2,716 | 1,686 | 1,563 | 175 | 945 | 141 | 302 | 122 | 1 |
| Science and engineering, women..... | 6,892 | 4,335 | 4,182 | 1,859 | 1,155 | 539 | 629 | 146 | 7 |
| Engineering, total..... | 518 | 296 | 287 | 64 | 75 | 111 | 37 | 8 | 1 |
| Aeronautical/astronautical..... | 12 | 5 | 5 | 1 | 0 | 0 | 4 | 0 | 0 |
| Chemical..... | 88 | 62 | 60 | 12 | 8 | 36 | 4 | 2 | 0 |
| Civil..... | 52 | 31 | 30 | 5 | 19 | 4 | 2 | 1 | 0 |
| Electrical..... | 120 | 65 | 63 | 8 | 17 | 31 | 7 | 2 | 0 |
| Industrial..... | 34 | 16 | 15 | 0 | 11 | 3 | 1 | 1 | 0 |
| Materials/metallurgical..... | 78 | 43 | 42 | 10 | 2 | 24 | 6 | 1 | 0 |
| Mechanical..... | 48 | 21 | 20 | 7 | 5 | 5 | 3 | 0 | 1 |
| Other engineering..... | 86 | 53 | 52 | 21 | 13 | 8 | 10 | 1 | 0 |

See explanatory information and SOURCES at end of table.

Table 4-36. Postgraduation plans of science and engineering doctorate recipients who are U.S. citizens and permanent residents, by sex and detailed field: 1995

Page 2 of 2

| Field of study | Total | Total with definite plans | In the United States | | | | | Abroad | Location unknown |
|---|--------|---------------------------|----------------------|---------------------|---------------------|---------------------|-------|--------|------------------|
| | | | Total in U.S. | Post-doctoral study | Academic employment | Industry employment | Other | | |
| Sciences, total..... | 6,374 | 4,039 | 3,895 | 1,795 | 1,080 | 428 | 592 | 138 | 6 |
| Physical sciences, total..... | 708 | 438 | 415 | 241 | 71 | 77 | 26 | 21 | 2 |
| Astronomy..... | 25 | 20 | 18 | 15 | 2 | 1 | 0 | 2 | 0 |
| Chemistry..... | 537 | 334 | 317 | 184 | 49 | 65 | 19 | 15 | 2 |
| Physics..... | 143 | 82 | 78 | 41 | 20 | 10 | 7 | 4 | 0 |
| Other physical sciences..... | 3 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |
| Earth, atmospheric, and ocean sciences..... | 144 | 83 | 79 | 35 | 15 | 10 | 19 | 4 | 0 |
| Mathematics..... | 183 | 107 | 104 | 15 | 67 | 15 | 7 | 3 | 0 |
| Computer sciences..... | 143 | 96 | 91 | 11 | 48 | 22 | 10 | 5 | 0 |
| Biological sciences..... | 1,854 | 1,278 | 1,227 | 1,001 | 114 | 50 | 62 | 47 | 4 |
| Agricultural sciences..... | 135 | 68 | 65 | 24 | 19 | 9 | 13 | 3 | 0 |
| Psychology..... | 2,044 | 1,221 | 1,208 | 366 | 314 | 191 | 337 | 13 | 0 |
| Social sciences..... | 1,163 | 748 | 706 | 102 | 432 | 54 | 118 | 42 | 0 |
| Science and engineering, men..... | 12,069 | 7,506 | 7,079 | 2,991 | 1,540 | 1,641 | 907 | 408 | 19 |
| Engineering, total..... | 2,818 | 1,608 | 1,544 | 310 | 237 | 778 | 219 | 60 | 4 |
| Aeronautical/astronautical..... | 141 | 78 | 77 | 16 | 8 | 29 | 24 | 1 | 0 |
| Chemical..... | 293 | 180 | 173 | 38 | 17 | 101 | 17 | 7 | 0 |
| Civil..... | 257 | 142 | 136 | 21 | 38 | 51 | 26 | 5 | 1 |
| Electrical..... | 851 | 503 | 488 | 67 | 70 | 295 | 56 | 15 | 0 |
| Industrial..... | 115 | 63 | 56 | 2 | 25 | 23 | 6 | 6 | 1 |
| Materials/metallurgical..... | 273 | 158 | 149 | 61 | 9 | 60 | 19 | 8 | 1 |
| Mechanical..... | 510 | 272 | 264 | 44 | 41 | 150 | 29 | 7 | 1 |
| Other engineering..... | 378 | 212 | 201 | 61 | 29 | 69 | 42 | 11 | 0 |
| Sciences, total..... | 9,251 | 5,898 | 5,535 | 2,681 | 1,303 | 863 | 688 | 348 | 15 |
| Physical sciences, total..... | 2,132 | 1,329 | 1,230 | 780 | 95 | 279 | 76 | 92 | 7 |
| Astronomy..... | 116 | 85 | 75 | 54 | 13 | 3 | 5 | 10 | 0 |
| Chemistry..... | 1,086 | 704 | 677 | 424 | 45 | 179 | 29 | 27 | 0 |
| Physics..... | 916 | 534 | 473 | 297 | 37 | 97 | 42 | 54 | 7 |
| Other physical sciences..... | 14 | 6 | 5 | 5 | 0 | 0 | 0 | 1 | 0 |
| Earth, atmospheric, and ocean sciences..... | 449 | 260 | 237 | 103 | 48 | 37 | 49 | 23 | 0 |
| Mathematics..... | 588 | 339 | 321 | 83 | 154 | 63 | 21 | 17 | 1 |
| Computer sciences..... | 474 | 297 | 282 | 34 | 95 | 125 | 28 | 14 | 1 |
| Biological sciences..... | 2,467 | 1,745 | 1,657 | 1,312 | 166 | 93 | 86 | 84 | 4 |
| Agricultural sciences..... | 463 | 279 | 253 | 80 | 61 | 76 | 36 | 26 | 0 |
| Psychology..... | 1,125 | 711 | 698 | 216 | 171 | 103 | 208 | 12 | 1 |
| Social sciences..... | 1,553 | 938 | 857 | 73 | 513 | 87 | 184 | 80 | 1 |

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates 1995.

Appendix table 4-37. Total master's degrees awarded, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents: 1987-1995, selected years

| Field and race/ethnicity | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Page 1 of 3 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|-------------|
| Total, all recipients | | | | | | | | | |
| Total science and engineering..... | 66,774 | 70,333 | 72,228 | 72,828 | 76,184 | 81,415 | 86,080 | 88,431 | |
| Sciences..... | 44,717 | 46,598 | 48,243 | 48,821 | 51,174 | 53,757 | 57,373 | 59,814 | |
| Physical science..... | 5,638 | 5,703 | 5,411 | 5,282 | 5,352 | 5,365 | 5,688 | 5,735 | |
| Mathematical science..... | 3,327 | 3,430 | 3,684 | 3,632 | 4,019 | 4,084 | 4,108 | 4,190 | |
| Computer science..... | 8,481 | 9,399 | 9,643 | 9,324 | 9,530 | 10,167 | 10,421 | 10,332 | |
| Biological science..... | 2,824 | 4,953 | 4,893 | 4,806 | 4,816 | 4,798 | 5,217 | 5,423 | |
| Agricultural science..... | 4,999 | 2,604 | 2,662 | 2,625 | 3,058 | 3,299 | 3,435 | 3,612 | |
| Psychology..... | 8,165 | 8,652 | 9,308 | 9,802 | 10,280 | 11,020 | 12,274 | 14,021 | |
| Social sciences..... | 11,283 | 11,857 | 12,642 | 13,350 | 14,119 | 15,024 | 16,230 | 16,501 | |
| Engineering..... | 22,057 | 23,735 | 23,985 | 24,007 | 25,010 | 27,658 | 28,707 | 28,617 | |
| Non-science and -engineering..... | 223,758 | 240,717 | 252,719 | 265,670 | 278,023 | 289,558 | 302,928 | 310,997 | |
| Grand total..... | 290,532 | 311,050 | 324,947 | 338,498 | 354,207 | 370,973 | 389,008 | 399,428 | |
| Total, U.S. citizens and permanent residents: | | | | | | | | | |
| Total science and engineering..... | 53,729 | 55,190 | 55,890 | 55,779 | 58,177 | 61,265 | 65,201 | 67,110 | |
| Sciences..... | 37,453 | 38,202 | 39,144 | 39,292 | 41,066 | 42,726 | 45,851 | 48,189 | |
| Physical science..... | 4,582 | 4,465 | 4,047 | 3,778 | 3,814 | 3,763 | 3,918 | 3,980 | |
| Mathematical science..... | 2,491 | 2,454 | 2,649 | 2,573 | 2,907 | 2,946 | 3,013 | 3,034 | |
| Computer science..... | 6,414 | 6,957 | 7,080 | 6,505 | 6,361 | 6,388 | 6,509 | 6,452 | |
| Biological science..... | 4,490 | 4,317 | 4,164 | 4,057 | 4,021 | 3,949 | 4,284 | 4,543 | |
| Agricultural science..... | 2,257 | 1,974 | 2,023 | 2,022 | 2,356 | 2,605 | 2,727 | 2,948 | |
| Psychology..... | 7,945 | 8,393 | 8,923 | 9,485 | 9,978 | 10,688 | 11,913 | 13,537 | |
| Social sciences..... | 9,274 | 9,642 | 10,258 | 10,872 | 11,629 | 12,387 | 13,487 | 13,695 | |
| Engineering..... | 16,276 | 16,988 | 16,746 | 16,487 | 17,111 | 18,539 | 19,350 | 18,921 | |
| Non-science and -engineering..... | 208,539 | 223,737 | 234,455 | 245,108 | 256,378 | 265,599 | 277,301 | 283,562 | |
| Grand total..... | 262,268 | 278,927 | 290,345 | 300,887 | 314,555 | 326,864 | 342,502 | 350,672 | |
| White, non-Hispanic | | | | | | | | | |
| Total science and engineering..... | 43,360 | 43,945 | 44,450 | 44,513 | 45,649 | 47,975 | 50,711 | 51,417 | |
| Sciences..... | 30,523 | 31,113 | 31,591 | 31,878 | 32,897 | 34,055 | 36,242 | 37,596 | |
| Physical science..... | 3,834 | 3,766 | 3,401 | 3,129 | 3,067 | 3,078 | 3,145 | 3,179 | |
| Mathematical science..... | 2,012 | 2,032 | 2,169 | 2,068 | 2,336 | 2,354 | 2,379 | 2,342 | |
| Computer science..... | 4,717 | 4,786 | 4,851 | 4,637 | 4,407 | 4,464 | 4,286 | 4,205 | |
| Biological science..... | 3,745 | 3,679 | 3,501 | 3,353 | 3,251 | 3,144 | 3,453 | 3,589 | |
| Agricultural science..... | 2,044 | 1,817 | 1,820 | 1,818 | 2,075 | 2,282 | 2,261 | 2,474 | |
| Psychology..... | 6,698 | 7,075 | 7,489 | 7,973 | 8,238 | 8,810 | 9,960 | 11,107 | |
| Social sciences..... | 7,473 | 7,958 | 8,360 | 8,900 | 9,523 | 9,923 | 10,758 | 10,700 | |
| Engineering..... | 12,837 | 12,832 | 12,859 | 12,635 | 12,752 | 13,920 | 14,469 | 13,821 | |
| Non-science and -engineering..... | 173,447 | 186,377 | 192,424 | 203,011 | 211,413 | 217,693 | 223,202 | 226,020 | |
| Grand total..... | 216,807 | 230,322 | 236,874 | 247,524 | 257,062 | 265,668 | 273,913 | 277,437 | |
| Asian | | | | | | | | | |
| Total science and engineering..... | 3,455 | 4,100 | 4,055 | 4,310 | 4,763 | 4,846 | 5,422 | 5,683 | |
| Sciences..... | 1,805 | 2,108 | 2,192 | 2,302 | 2,540 | 2,586 | 2,979 | 3,111 | |
| Physical science..... | 227 | 278 | 234 | 251 | 295 | 249 | 284 | 288 | |
| Mathematical science..... | 183 | 178 | 184 | 189 | 201 | 197 | 233 | 239 | |
| Computer science..... | 779 | 894 | 941 | 1,014 | 1,105 | 1,106 | 1,228 | 1,239 | |
| Biological science..... | 190 | 223 | 225 | 231 | 264 | 305 | 332 | 417 | |
| Agricultural science..... | 47 | 44 | 45 | 50 | 51 | 61 | 82 | 97 | |
| Psychology..... | 113 | 131 | 159 | 170 | 183 | 191 | 270 | 298 | |
| Social sciences..... | 266 | 360 | 404 | 397 | 441 | 477 | 550 | 533 | |
| Engineering..... | 1,650 | 1,992 | 1,863 | 2,008 | 2,223 | 2,260 | 2,443 | 2,572 | |
| Non-science and -engineering..... | 4,674 | 6,074 | 5,939 | 6,760 | 7,530 | 8,323 | 9,137 | 10,223 | |
| Grand total..... | 8,129 | 10,174 | 9,994 | 11,070 | 12,293 | 13,169 | 14,559 | 15,906 | |

See explanatory information and SOURCES at end of table.

Appendix table 4-37. Total master's degrees awarded, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents: 1987-1995, selected years

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| Field and race/ethnicity | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Black, non-Hispanic | | | | | | | | |
| Total science and engineering..... | 1,784 | 1,652 | 1,847 | 2,090 | 2,356 | 2,554 | 2,849 | 3,339 |
| Sciences..... | 1,381 | 1,297 | 1,460 | 1,692 | 1,890 | 1,990 | 2,260 | 2,674 |
| Physical science..... | 79 | 78 | 87 | 73 | 98 | 105 | 127 | 147 |
| Mathematical science..... | 73 | 59 | 70 | 100 | 77 | 98 | 109 | 151 |
| Computer science..... | 207 | 198 | 232 | 283 | 316 | 308 | 365 | 347 |
| Biological science..... | 167 | 124 | 110 | 137 | 149 | 135 | 142 | 162 |
| Agricultural science..... | 55 | 36 | 28 | 51 | 59 | 70 | 78 | 74 |
| Psychology..... | 376 | 395 | 471 | 454 | 531 | 544 | 636 | 863 |
| Social sciences..... | 424 | 407 | 462 | 594 | 660 | 730 | 803 | 930 |
| Engineering..... | 403 | 355 | 387 | 398 | 466 | 564 | 589 | 665 |
| Non-science and -engineering..... | 11,389 | 11,803 | 12,626 | 13,767 | 15,064 | 16,343 | 18,087 | 19,615 |
| Grand total..... | 13,173 | 13,455 | 14,473 | 15,857 | 17,420 | 18,897 | 20,936 | 22,954 |
| Hispanic | | | | | | | | |
| Total science and engineering..... | 1,584 | 1,585 | 1,587 | 1,736 | 1,806 | 2,092 | 2,514 | 2,585 |
| Sciences..... | 1,072 | 1,117 | 1,141 | 1,268 | 1,318 | 1,511 | 1,795 | 1,874 |
| Physical science..... | 122 | 92 | 98 | 96 | 93 | 114 | 114 | 129 |
| Mathematical science..... | 60 | 34 | 51 | 85 | 66 | 78 | 75 | 75 |
| Computer science..... | 123 | 144 | 118 | 128 | 149 | 162 | 169 | 198 |
| Biological science..... | 126 | 126 | 120 | 136 | 146 | 151 | 138 | 167 |
| Agricultural science..... | 62 | 48 | 44 | 49 | 49 | 69 | 184 | 96 |
| Psychology..... | 271 | 360 | 369 | 391 | 419 | 463 | 558 | 656 |
| Social sciences..... | 308 | 313 | 341 | 383 | 396 | 474 | 557 | 553 |
| Engineering..... | 512 | 468 | 446 | 468 | 488 | 581 | 719 | 711 |
| Non-science and -engineering..... | 6,197 | 6,548 | 6,908 | 7,948 | 8,450 | 9,279 | 10,663 | 11,320 |
| Grand total..... | 7,781 | 8,133 | 8,495 | 9,684 | 10,256 | 11,371 | 13,177 | 13,905 |
| American Indian | | | | | | | | |
| Total science and engineering..... | 147 | 209 | 181 | 200 | 198 | 253 | 273 | 299 |
| Sciences..... | 109 | 176 | 146 | 160 | 156 | 203 | 213 | 256 |
| Physical science..... | 9 | 18 | 9 | 13 | 18 | 12 | 16 | 19 |
| Mathematical science..... | 3 | 6 | 6 | 9 | 4 | 8 | 6 | 11 |
| Computer science..... | 22 | 39 | 7 | 14 | 15 | 14 | 18 | 16 |
| Biological science..... | 11 | 17 | 14 | 13 | 12 | 26 | 17 | 20 |
| Agricultural science..... | 3 | 6 | 8 | 8 | 7 | 8 | 11 | 13 |
| Psychology..... | 35 | 33 | 37 | 49 | 38 | 57 | 62 | 85 |
| Social sciences..... | 26 | 57 | 65 | 54 | 62 | 78 | 83 | 92 |
| Engineering..... | 38 | 33 | 35 | 40 | 42 | 50 | 60 | 43 |
| Non-science and -engineering..... | 902 | 873 | 869 | 925 | 1,030 | 1,091 | 1,345 | 1,243 |
| Grand total..... | 1,049 | 1,082 | 1,050 | 1,125 | 1,228 | 1,344 | 1,618 | 1,542 |
| Unknown Race/Ethnicity | | | | | | | | |
| Total science and engineering..... | 3,399 | 3,699 | 3,770 | 2,930 | 3,405 | 3,545 | 3,432 | 3,787 |
| Sciences..... | 2,563 | 2,391 | 2,614 | 1,992 | 2,265 | 2,381 | 2,362 | 2,678 |
| Physical science..... | 311 | 233 | 218 | 216 | 243 | 205 | 232 | 218 |
| Mathematical science..... | 160 | 145 | 169 | 122 | 223 | 211 | 211 | 216 |
| Computer science..... | 566 | 896 | 931 | 429 | 369 | 334 | 443 | 447 |
| Biological science..... | 251 | 148 | 194 | 187 | 199 | 188 | 202 | 188 |
| Agricultural science..... | 46 | 23 | 78 | 46 | 115 | 115 | 111 | 194 |
| Psychology..... | 452 | 399 | 398 | 448 | 569 | 623 | 427 | 528 |
| Social sciences..... | 777 | 547 | 626 | 544 | 547 | 705 | 736 | 887 |
| Engineering..... | 836 | 1,308 | 1,156 | 938 | 1,140 | 1,164 | 1,070 | 1,109 |
| Non-science and -engineering..... | 11,930 | 12,062 | 15,689 | 12,697 | 12,891 | 12,870 | 14,867 | 15,141 |
| Grand total..... | 15,329 | 15,761 | 19,459 | 15,627 | 16,296 | 16,415 | 18,299 | 18,928 |

See explanatory information and SOURCES at end of table.

Appendix table 4-37. Total master's degrees awarded, by field, citizenship status, and race/ethnicity of U.S. citizens and permanent residents: 1987-1995, selected years

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| Field and race/ethnicity | 1987 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nonresident aliens | | | | | | | | |
| Total science and engineering..... | 13,045 | 15,143 | 16,338 | 17,049 | 18,007 | 20,150 | 20,879 | 21,321 |
| Sciences..... | 7,264 | 8,396 | 9,099 | 9,529 | 10,108 | 11,031 | 11,522 | 11,625 |
| Physical science..... | 1,056 | 1,238 | 1,364 | 1,504 | 1,538 | 1,602 | 1,770 | 1,755 |
| Mathematical science..... | 836 | 976 | 1,035 | 1,059 | 1,112 | 1,138 | 1,095 | 1,156 |
| Computer science..... | 2,067 | 2,442 | 2,563 | 2,819 | 3,169 | 3,779 | 3,912 | 3,880 |
| Biological science..... | 567 | 636 | 729 | 749 | 795 | 849 | 933 | 880 |
| Agricultural science..... | 509 | 630 | 639 | 603 | 702 | 694 | 708 | 664 |
| Psychology..... | 220 | 259 | 385 | 317 | 302 | 332 | 361 | 484 |
| Social sciences..... | 2,009 | 2,215 | 2,384 | 2,478 | 2,490 | 2,637 | 2,743 | 2,806 |
| Engineering..... | 5,781 | 6,747 | 7,239 | 7,520 | 7,899 | 9,119 | 9,357 | 9,696 |
| Non-science and -engineering..... | 15,219 | 16,980 | 18,264 | 20,562 | 21,645 | 23,959 | 25,627 | 27,435 |
| Grand total..... | 28,264 | 32,123 | 34,602 | 37,611 | 39,652 | 44,109 | 46,506 | 48,756 |

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories as designated on the survey form. Race/ethnicity categories include only U.S. citizens and permanent residents. Nonresident aliens include foreign citizens on temporary visas only. No racial/ethnic data are collected for this group.

SOURCES: Tabulations by National Science Foundation/SRS; data from U.S. Department of Education/NCES IPEDS Completions Surveys, 1987-1995.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-38. Master's degrees awarded to U.S. citizens and permanent residents, by sex of recipient, field, and race/ethnicity: 1995

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| | Total | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian | Unknown race/ethnicity |
|------------------------------------|---------|---------------------|--------|---------------------|----------|-----------------|------------------------|
| Both sexes: | | | | | | | |
| Total science and engineering..... | 67,110 | 51,417 | 5,683 | 3,339 | 2,585 | 299 | 3,787 |
| Sciences..... | 48,189 | 37,596 | 3,111 | 2,674 | 1,874 | 256 | 2,678 |
| Physical science..... | 3,980 | 3,179 | 288 | 147 | 129 | 19 | 218 |
| Mathematical science..... | 3,034 | 2,342 | 239 | 151 | 75 | 11 | 216 |
| Computer science..... | 6,452 | 4,205 | 1,239 | 347 | 198 | 16 | 447 |
| Biological science..... | 4,543 | 3,589 | 417 | 162 | 167 | 20 | 188 |
| Agricultural science..... | 2,948 | 2,474 | 97 | 74 | 96 | 13 | 194 |
| Psychology..... | 13,537 | 11,107 | 298 | 863 | 656 | 85 | 528 |
| Social sciences..... | 13,695 | 10,700 | 533 | 930 | 553 | 92 | 887 |
| Engineering..... | 18,921 | 13,821 | 2,572 | 665 | 711 | 43 | 1,109 |
| Non-science and -engineering..... | 283,562 | 226,020 | 10,223 | 19,615 | 11,320 | 1,243 | 15,141 |
| Grand total..... | 350,672 | 277,437 | 15,906 | 22,954 | 13,905 | 1,542 | 18,928 |
| Women: | | | | | | | |
| Total science and engineering..... | 27,326 | 20,953 | 1,950 | 1,805 | 1,127 | 148 | 1,343 |
| Sciences..... | 24,029 | 18,713 | 1,401 | 1,604 | 994 | 145 | 1,172 |
| Physical science..... | 1,202 | 923 | 101 | 61 | 41 | 8 | 68 |
| Mathematical science..... | 1,269 | 988 | 105 | 87 | 22 | 6 | 61 |
| Computer science..... | 1,727 | 974 | 454 | 148 | 47 | 5 | 99 |
| Biological science..... | 2,379 | 1,849 | 208 | 112 | 92 | 9 | 109 |
| Agricultural science..... | 1,246 | 1,024 | 53 | 39 | 40 | 3 | 87 |
| Psychology..... | 9,775 | 8,005 | 219 | 645 | 482 | 55 | 369 |
| Social sciences..... | 6,431 | 4,950 | 261 | 512 | 270 | 59 | 379 |
| Engineering..... | 3,297 | 2,240 | 549 | 201 | 133 | 3 | 171 |
| Non-science and -engineering..... | 175,307 | 139,829 | 5,571 | 13,513 | 7,053 | 771 | 8,570 |
| Grand total..... | 202,633 | 160,782 | 7,521 | 15,318 | 8,180 | 919 | 9,913 |
| Men: | | | | | | | |
| Total science and engineering..... | 39,784 | 30,464 | 3,733 | 1,534 | 1,458 | 151 | 2,444 |
| Sciences..... | 24,160 | 18,883 | 1,710 | 1,070 | 880 | 111 | 1,506 |
| Physical science..... | 2,778 | 2,256 | 187 | 86 | 88 | 11 | 150 |
| Mathematical science..... | 1,765 | 1,354 | 134 | 64 | 53 | 5 | 155 |
| Computer science..... | 4,725 | 3,231 | 785 | 199 | 151 | 11 | 348 |
| Biological science..... | 2,164 | 1,740 | 209 | 50 | 75 | 11 | 79 |
| Agricultural science..... | 1,702 | 1,450 | 44 | 35 | 56 | 10 | 107 |
| Psychology..... | 3,762 | 3,102 | 79 | 218 | 174 | 30 | 159 |
| Social sciences..... | 7,264 | 5,750 | 272 | 418 | 283 | 33 | 508 |
| Engineering..... | 15,624 | 11,581 | 2,023 | 464 | 578 | 40 | 938 |
| Non-science and -engineering..... | 108,255 | 86,191 | 4,652 | 6,102 | 4,267 | 472 | 6,571 |
| Grand total..... | 148,039 | 116,655 | 8,385 | 7,636 | 5,725 | 623 | 9,015 |
| Women as percent of total | | | | | | | |
| Total science and engineering..... | 40.7 | 40.8 | 34.3 | 54.1 | 43.6 | 49.5 | 35.5 |
| Sciences..... | 49.9 | 49.8 | 45.0 | 60.0 | 53.0 | 56.6 | 43.8 |
| Physical science..... | 30.2 | 29.0 | 35.1 | 41.5 | 31.8 | 42.1 | 31.2 |
| Mathematical science..... | 41.8 | 42.2 | 43.9 | 57.6 | 29.3 | 54.5 | 28.2 |
| Computer science..... | 26.8 | 23.2 | 36.6 | 42.7 | 23.7 | 31.3 | 22.1 |
| Biological science..... | 52.4 | 51.5 | 49.9 | 69.1 | 55.1 | 45.0 | 58.0 |
| Agricultural science..... | 42.3 | 41.4 | 54.6 | 52.7 | 41.7 | 23.1 | 44.8 |
| Psychology..... | 72.2 | 72.1 | 73.5 | 74.7 | 73.5 | 64.7 | 69.9 |
| Social sciences..... | 47.0 | 46.3 | 49.0 | 55.1 | 48.8 | 64.1 | 42.7 |
| Engineering..... | 17.4 | 16.2 | 21.3 | 30.2 | 18.7 | 7.0 | 15.4 |
| Non-science and -engineering..... | 61.8 | 61.9 | 54.5 | 68.9 | 62.3 | 62.0 | 56.6 |
| Grand total..... | 57.8 | 58.0 | 47.3 | 66.7 | 58.8 | 59.6 | 52.4 |

See explanatory information and SOURCES at end of table.

Appendix table 4-38. Master's degrees awarded to U.S. citizens and permanent residents, by sex of recipient, field, and race/ethnicity: 1995

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| | Total | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian | Unknown race/ethnicity |
|------------------------------------|-------|---------------------|-------|---------------------|----------|-----------------|------------------------|
| Percent of women | | | | | | | |
| Total science and engineering..... | 100.0 | 76.7 | 7.1 | 6.6 | 4.1 | 0.5 | 4.9 |
| Sciences..... | 100.0 | 77.9 | 5.8 | 6.7 | 4.1 | 0.6 | 4.9 |
| Physical science..... | 100.0 | 76.8 | 8.4 | 5.1 | 3.4 | 0.7 | 5.7 |
| Mathematical science..... | 100.0 | 77.9 | 8.3 | 6.9 | 1.7 | 0.5 | 4.8 |
| Computer science..... | 100.0 | 56.4 | 26.3 | 8.6 | 2.7 | 0.3 | 5.7 |
| Biological science..... | 100.0 | 77.7 | 8.7 | 4.7 | 3.9 | 0.4 | 4.6 |
| Agricultural science..... | 100.0 | 82.2 | 4.3 | 3.1 | 3.2 | 0.2 | 7.0 |
| Psychology..... | 100.0 | 81.9 | 2.2 | 6.6 | 4.9 | 0.6 | 3.8 |
| Social sciences..... | 100.0 | 77.0 | 4.1 | 8.0 | 4.2 | 0.9 | 5.9 |
| Engineering..... | 100.0 | 67.9 | 16.7 | 6.1 | 4.0 | 0.1 | 5.2 |
| Non-science and -engineering..... | 100.0 | 79.8 | 3.2 | 7.7 | 4.0 | 0.4 | 4.9 |
| Grand total..... | 100.0 | 79.3 | 3.7 | 7.6 | 4.0 | 0.5 | 4.9 |

NOTES: Data on race/ethnicity were collected biennially from 1977 through 1989 and annually thereafter. Data on race/ethnicity of degree recipients are collected on broad fields of study only; therefore, these data could not be adjusted to the exact field taxonomies used by NSF. Racial/ethnic categories as designated on the survey form. These categories include U.S. citizens and foreign citizens on permanent visas (i.e., resident aliens who have been admitted for permanent residency).

SOURCES: Tabulations by National Science Foundation/SRS; data from U.S. Department of Education/NCES biennial data from the HEGIS Earned Degrees Surveys, 1985, and IPEDS Completions Surveys, 1987–1993.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-39. Science and engineering doctorates, by field and race/ethnicity: 1985-1995

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| Field and race/ethnicity | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Science and engineering, total..... | 14,065 | 14,016 | 14,055 | 14,499 | 14,591 | 15,363 | 15,909 | 15,940 | 16,570 | 18,184 | 18,961 |
| Engineering, total..... | 1,594 | 1,726 | 1,913 | 2,146 | 2,229 | 2,346 | 2,474 | 2,520 | 2,697 | 3,053 | 3,336 |
| Chemical..... | 292 | 298 | 350 | 408 | 444 | 392 | 399 | 378 | 377 | 380 | 381 |
| Civil..... | 170 | 192 | 203 | 233 | 247 | 241 | 213 | 215 | 227 | 292 | 309 |
| Electrical..... | 353 | 410 | 393 | 503 | 539 | 599 | 686 | 719 | 795 | 899 | 971 |
| Mechanical..... | 251 | 267 | 308 | 327 | 325 | 368 | 359 | 426 | 434 | 538 | 558 |
| Other engineering..... | 528 | 559 | 659 | 675 | 674 | 746 | 817 | 782 | 864 | 944 | 1,117 |
| Sciences, total..... | 12,471 | 12,290 | 12,142 | 12,353 | 12,362 | 13,017 | 13,435 | 13,420 | 13,873 | 15,131 | 15,625 |
| Physical sciences, total..... | 2,187 | 2,166 | 2,242 | 2,258 | 2,131 | 2,341 | 2,299 | 2,356 | 2,330 | 2,789 | 2,840 |
| Astronomy..... | 84 | 91 | 73 | 104 | 82 | 96 | 86 | 106 | 111 | 112 | 141 |
| Chemistry..... | 1,432 | 1,413 | 1,472 | 1,451 | 1,383 | 1,497 | 1,460 | 1,440 | 1,400 | 1,616 | 1,623 |
| Physics..... | 662 | 643 | 682 | 681 | 654 | 725 | 739 | 790 | 806 | 1,044 | 1,059 |
| Other physical sciences..... | 9 | 19 | 15 | 22 | 12 | 23 | 14 | 20 | 13 | 17 | 17 |
| Earth, atmospheric, and ocean sciences..... | 465 | 427 | 435 | 520 | 547 | 535 | 618 | 541 | 504 | 613 | 593 |
| Mathematics..... | 418 | 402 | 396 | 386 | 428 | 422 | 518 | 507 | 590 | 657 | 771 |
| Computer sciences..... | 213 | 249 | 275 | 326 | 396 | 403 | 451 | 489 | 509 | 543 | 617 |
| Biological sciences..... | 3,256 | 3,241 | 3,141 | 3,323 | 3,299 | 3,379 | 3,521 | 3,567 | 3,751 | 4,085 | 4,321 |
| Agricultural sciences..... | 726 | 626 | 632 | 610 | 651 | 687 | 620 | 573 | 506 | 616 | 598 |
| Psychology..... | 2,864 | 2,832 | 2,806 | 2,729 | 2,737 | 2,992 | 3,018 | 2,986 | 3,159 | 3,137 | 3,169 |
| Social sciences..... | 2,342 | 2,347 | 2,215 | 2,201 | 2,173 | 2,258 | 2,390 | 2,401 | 2,524 | 2,691 | 2,716 |
| Non-science and -engineering, total..... | 10,629 | 10,503 | 10,507 | 10,414 | 10,435 | 11,240 | 11,509 | 12,016 | 12,105 | 12,693 | 12,949 |
| Health..... | 585 | 603 | 646 | 692 | 756 | 756 | 839 | 855 | 939 | 1,050 | 1,045 |
| Humanities ¹ | 1,999 | 2,665 | 2,672 | 2,759 | 2,716 | 3,082 | 3,194 | 3,440 | 3,512 | 3,765 | 4,053 |
| Education..... | 5,906 | 5,802 | 5,665 | 5,477 | 5,410 | 5,788 | 5,781 | 5,985 | 5,940 | 6,050 | 5,895 |
| Professional/other..... | 2,139 | 1,433 | 1,524 | 1,486 | 1,553 | 1,614 | 1,695 | 1,736 | 1,714 | 1,828 | 1,956 |
| Grand total, all fields..... | 24,694 | 24,519 | 24,562 | 24,913 | 25,026 | 26,603 | 27,418 | 27,956 | 28,675 | 30,877 | 31,910 |
| White | | | | | | | | | | | |
| Science and engineering, total..... | 12,169 | 12,151 | 12,052 | 12,456 | 12,501 | 13,170 | 13,323 | 13,326 | 13,735 | 13,890 | 13,879 |
| Engineering, total..... | 1,188 | 1,354 | 1,458 | 1,655 | 1,726 | 1,840 | 1,837 | 1,880 | 2,025 | 2,020 | 2,086 |
| Chemical..... | 211 | 227 | 266 | 317 | 345 | 318 | 322 | 284 | 295 | 259 | 256 |
| Civil..... | 130 | 152 | 158 | 183 | 191 | 196 | 159 | 166 | 168 | 199 | 194 |
| Electrical..... | 259 | 319 | 283 | 363 | 405 | 450 | 478 | 487 | 553 | 548 | 588 |
| Mechanical..... | 176 | 210 | 230 | 253 | 241 | 286 | 266 | 326 | 328 | 337 | 334 |
| Other engineering..... | 412 | 446 | 521 | 539 | 544 | 590 | 612 | 617 | 681 | 677 | 714 |
| Sciences, total..... | 10,981 | 10,797 | 10,594 | 10,801 | 10,775 | 11,330 | 11,486 | 11,446 | 11,710 | 11,870 | 11,793 |
| Physical sciences, total..... | 1,906 | 1,875 | 1,956 | 1,948 | 1,828 | 2,008 | 1,968 | 1,973 | 1,911 | 2,025 | 1,921 |
| Astronomy..... | 77 | 79 | 69 | 93 | 74 | 86 | 83 | 95 | 100 | 97 | 111 |
| Chemistry..... | 1,243 | 1,209 | 1,267 | 1,258 | 1,188 | 1,284 | 1,239 | 1,219 | 1,145 | 1,179 | 1,110 |
| Physics..... | 580 | 571 | 606 | 577 | 555 | 618 | 633 | 641 | 656 | 736 | 686 |
| Other physical sciences..... | 6 | 16 | 14 | 20 | 11 | 20 | 13 | 18 | 10 | 13 | 14 |
| Earth, atmospheric, and ocean sciences..... | 425 | 397 | 394 | 480 | 498 | 494 | 557 | 485 | 455 | 504 | 464 |
| Mathematics..... | 350 | 343 | 319 | 332 | 369 | 372 | 419 | 425 | 476 | 479 | 535 |

See explanatory information and SOURCES at end of table.

Appendix table 4-39. Science and engineering doctorates, by field and race/ethnicity: 1985-1995

Page 2 of 4

| Field and race/ethnicity | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Computer sciences..... | 177 | 194 | 229 | 265 | 319 | 339 | 355 | 378 | 410 | 401 | 453 |
| Biological sciences..... | 2,913 | 2,888 | 2,759 | 2,966 | 2,904 | 2,975 | 3,041 | 3,068 | 3,146 | 3,108 | 3,116 |
| Agricultural sciences..... | 659 | 557 | 554 | 518 | 570 | 601 | 545 | 493 | 438 | 487 | 473 |
| Psychology..... | 2,591 | 2,548 | 2,516 | 2,445 | 2,453 | 2,648 | 2,652 | 2,636 | 2,805 | 2,731 | 2,715 |
| Social sciences..... | 1,960 | 1,995 | 1,867 | 1,847 | 1,834 | 1,893 | 1,949 | 1,988 | 2,069 | 2,135 | 2,116 |
| Non-science and -engineering, total..... | 9,137 | 9,085 | 9,070 | 9,005 | 9,069 | 9,709 | 9,856 | 10,273 | 10,292 | 10,695 | 10,729 |
| Health..... | 502 | 524 | 553 | 606 | 684 | 662 | 720 | 735 | 800 | 867 | 835 |
| Humanities ¹ | 1,772 | 2,401 | 2,363 | 2,471 | 2,399 | 2,766 | 2,821 | 3,061 | 3,109 | 3,282 | 3,520 |
| Education..... | 4,994 | 4,923 | 4,820 | 4,668 | 4,634 | 4,901 | 4,883 | 5,025 | 4,942 | 5,035 | 4,779 |
| Professional/other..... | 1,869 | 1,237 | 1,334 | 1,260 | 1,352 | 1,380 | 1,432 | 1,452 | 1,441 | 1,511 | 1,595 |
| Grand total, all fields..... | 21,306 | 21,236 | 21,122 | 21,461 | 21,570 | 22,879 | 23,179 | 23,599 | 24,027 | 24,585 | 24,608 |
| Asian | | | | | | | | | | | |
| Science and engineering, total..... | 809 | 816 | 925 | 916 | 986 | 1,009 | 1,180 | 1,344 | 1,610 | 2,989 | 3,666 |
| Engineering, total..... | 281 | 262 | 327 | 332 | 361 | 359 | 405 | 451 | 527 | 867 | 1,031 |
| Chemical..... | 60 | 58 | 60 | 67 | 77 | 51 | 50 | 54 | 62 | 96 | 101 |
| Civil..... | 26 | 26 | 34 | 27 | 36 | 28 | 30 | 34 | 41 | 69 | 91 |
| Electrical..... | 63 | 71 | 78 | 103 | 93 | 115 | 140 | 175 | 199 | 304 | 322 |
| Mechanical..... | 58 | 31 | 61 | 57 | 66 | 69 | 62 | 78 | 93 | 179 | 189 |
| Other engineering..... | 74 | 76 | 94 | 78 | 89 | 96 | 123 | 110 | 132 | 219 | 328 |
| Sciences, total..... | 528 | 554 | 598 | 584 | 625 | 650 | 775 | 893 | 1,083 | 2,122 | 2,635 |
| Physical sciences, total..... | 152 | 147 | 143 | 138 | 156 | 164 | 172 | 226 | 265 | 600 | 751 |
| Astronomy..... | 2 | 6 | 1 | 5 | 2 | 5 | 0 | 4 | 4 | 10 | 22 |
| Chemistry..... | 112 | 110 | 108 | 85 | 96 | 99 | 122 | 134 | 157 | 332 | 416 |
| Physics..... | 36 | 31 | 34 | 47 | 57 | 58 | 50 | 88 | 103 | 255 | 312 |
| Other physical sciences..... | 2 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 1 | 3 | 1 |
| Earth, atmospheric, and ocean sciences..... | 19 | 14 | 18 | 14 | 23 | 15 | 17 | 27 | 22 | 89 | 104 |
| Mathematics..... | 33 | 28 | 41 | 33 | 24 | 27 | 57 | 52 | 79 | 142 | 208 |
| Computer sciences..... | 17 | 37 | 26 | 44 | 52 | 48 | 66 | 86 | 77 | 117 | 138 |
| Biological sciences..... | 151 | 168 | 170 | 171 | 201 | 200 | 261 | 269 | 370 | 720 | 924 |
| Agricultural sciences..... | 24 | 22 | 38 | 30 | 23 | 32 | 24 | 37 | 29 | 72 | 78 |
| Psychology..... | 44 | 42 | 48 | 47 | 55 | 53 | 59 | 59 | 73 | 109 | 121 |
| Social sciences..... | 88 | 96 | 114 | 107 | 91 | 111 | 119 | 137 | 168 | 273 | 311 |
| Non-science and -engineering, total..... | 261 | 245 | 243 | 319 | 282 | 297 | 351 | 417 | 402 | 556 | 634 |
| Health..... | 35 | 30 | 35 | 30 | 22 | 39 | 44 | 52 | 45 | 94 | 94 |
| Humanities ¹ | 35 | 42 | 53 | 64 | 79 | 62 | 81 | 99 | 108 | 151 | 193 |
| Education..... | 98 | 95 | 95 | 130 | 102 | 104 | 130 | 142 | 141 | 172 | 174 |
| Professional/other..... | 93 | 78 | 60 | 95 | 79 | 92 | 96 | 124 | 108 | 139 | 173 |
| Grand total, all fields..... | 1,070 | 1,061 | 1,168 | 1,235 | 1,268 | 1,306 | 1,531 | 1,761 | 2,012 | 3,545 | 4,300 |

See explanatory information and SOURCES at end of table.

Appendix table 4-39. Science and engineering doctorates, by field and race/ethnicity: 1985-1995

Page 3 of 4

| Field and race/ethnicity | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Black | | | | | | | | | | | |
| Science and engineering, total..... | 374 | 339 | 319 | 361 | 366 | 373 | 459 | 407 | 468 | 496 | 557 |
| Engineering, total..... | 34 | 24 | 25 | 31 | 33 | 40 | 55 | 49 | 50 | 54 | 71 |
| Chemical..... | 6 | 4 | 4 | 7 | 5 | 10 | 8 | 13 | 6 | 8 | 3 |
| Civil..... | 4 | 4 | 4 | 1 | 5 | 1 | 12 | 3 | 5 | 8 | 11 |
| Electrical..... | 8 | 4 | 3 | 7 | 9 | 8 | 16 | 17 | 15 | 17 | 24 |
| Mechanical..... | 3 | 3 | 3 | 1 | 5 | 5 | 3 | 5 | 3 | 7 | 14 |
| Other engineering..... | 13 | 9 | 11 | 15 | 9 | 16 | 16 | 11 | 21 | 14 | 19 |
| Sciences, total..... | 340 | 315 | 294 | 330 | 333 | 333 | 404 | 358 | 418 | 442 | 486 |
| Physical sciences, total..... | 27 | 27 | 20 | 34 | 31 | 30 | 31 | 25 | 41 | 46 | 43 |
| Astronomy..... | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 |
| Chemistry..... | 23 | 18 | 13 | 22 | 26 | 24 | 22 | 17 | 31 | 34 | 33 |
| Physics..... | 4 | 8 | 5 | 12 | 5 | 5 | 9 | 6 | 7 | 11 | 9 |
| Other physical sciences..... | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Earth, atmospheric, and ocean sciences..... | 4 | 0 | 2 | 3 | 4 | 3 | 3 | 6 | 4 | 6 | 3 |
| Mathematics..... | 7 | 6 | 11 | 4 | 8 | 4 | 11 | 4 | 8 | 11 | 5 |
| Computer sciences..... | 3 | 1 | 2 | 2 | 1 | 1 | 8 | 5 | 6 | 10 | 11 |
| Biological sciences..... | 53 | 48 | 60 | 48 | 56 | 50 | 60 | 61 | 74 | 75 | 105 |
| Agricultural sciences..... | 16 | 16 | 13 | 20 | 14 | 15 | 17 | 14 | 16 | 22 | 17 |
| Psychology..... | 105 | 111 | 93 | 105 | 97 | 115 | 130 | 106 | 119 | 124 | 150 |
| Social sciences..... | 125 | 106 | 93 | 114 | 122 | 115 | 144 | 137 | 150 | 148 | 152 |
| Non-science and -engineering, total..... | 669 | 617 | 591 | 609 | 596 | 676 | 701 | 706 | 809 | 778 | 898 |
| Health..... | 23 | 21 | 31 | 32 | 29 | 32 | 40 | 38 | 59 | 46 | 60 |
| Humanities ¹ | 52 | 67 | 73 | 76 | 71 | 72 | 92 | 90 | 98 | 107 | 114 |
| Education..... | 505 | 464 | 417 | 417 | 432 | 496 | 471 | 499 | 555 | 519 | 610 |
| Professional/other..... | 89 | 65 | 70 | 84 | 64 | 76 | 98 | 79 | 97 | 106 | 114 |
| Grand total, all fields..... | 1,043 | 956 | 910 | 970 | 962 | 1,049 | 1,160 | 1,113 | 1,277 | 1,274 | 1,455 |
| Hispanic | | | | | | | | | | | |
| Science and engineering, total..... | 296 | 345 | 357 | 397 | 382 | 468 | 492 | 513 | 542 | 548 | 568 |
| Engineering, total..... | 22 | 35 | 34 | 63 | 47 | 54 | 60 | 71 | 66 | 66 | 77 |
| Chemical..... | 2 | 4 | 11 | 5 | 9 | 8 | 11 | 16 | 10 | 7 | 13 |
| Civil..... | 7 | 7 | 1 | 13 | 8 | 9 | 5 | 7 | 12 | 14 | 11 |
| Electrical..... | 4 | 9 | 6 | 14 | 14 | 13 | 15 | 17 | 17 | 21 | 15 |
| Mechanical..... | 3 | 6 | 5 | 7 | 3 | 5 | 9 | 11 | 5 | 8 | 8 |
| Other engineering..... | 6 | 9 | 11 | 24 | 13 | 19 | 20 | 20 | 22 | 16 | 30 |
| Sciences, total..... | 274 | 310 | 323 | 334 | 335 | 414 | 432 | 442 | 476 | 482 | 491 |
| Physical sciences, total..... | 30 | 41 | 56 | 63 | 59 | 72 | 65 | 72 | 79 | 90 | 73 |
| Astronomy..... | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 4 | 2 | 2 | 4 |
| Chemistry..... | 17 | 25 | 44 | 48 | 43 | 57 | 46 | 42 | 51 | 59 | 43 |
| Physics..... | 13 | 13 | 12 | 13 | 14 | 13 | 18 | 26 | 26 | 29 | 26 |
| Other physical sciences..... | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

See explanatory information and SOURCES at end of table.

Appendix table 4-39. Science and engineering doctorates, by field and race/ethnicity: 1985-1995

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| Field and race/ethnicity | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|------|------|------|------|------|------|------|------|------|-------|-------|
| Earth, atmospheric, and ocean sciences..... | 6 | 4 | 5 | 7 | 9 | 13 | 16 | 16 | 13 | 8 | 12 |
| Mathematics..... | 12 | 12 | 11 | 4 | 11 | 10 | 9 | 12 | 16 | 13 | 15 |
| Computer sciences..... | 6 | 7 | 4 | 2 | 4 | 5 | 12 | 8 | 7 | 7 | 6 |
| Biological sciences..... | 59 | 66 | 62 | 76 | 71 | 89 | 95 | 102 | 114 | 131 | 126 |
| Agricultural sciences..... | 12 | 17 | 15 | 21 | 18 | 23 | 15 | 18 | 20 | 25 | 21 |
| Psychology..... | 69 | 90 | 95 | 93 | 93 | 109 | 122 | 133 | 131 | 133 | 145 |
| Social sciences..... | 80 | 73 | 75 | 68 | 70 | 93 | 98 | 81 | 96 | 75 | 93 |
| Non-science and -engineering, total..... | 338 | 334 | 351 | 296 | 312 | 369 | 375 | 396 | 431 | 481 | 487 |
| Health..... | 14 | 12 | 11 | 13 | 11 | 17 | 16 | 13 | 24 | 25 | 30 |
| Humanities ¹ | 91 | 91 | 114 | 102 | 100 | 127 | 136 | 129 | 145 | 167 | 153 |
| Education..... | 190 | 204 | 201 | 158 | 171 | 190 | 189 | 214 | 222 | 241 | 255 |
| Professional/other..... | 43 | 27 | 25 | 23 | 30 | 35 | 34 | 40 | 40 | 48 | 49 |
| Grand total, all fields..... | 634 | 679 | 708 | 693 | 694 | 837 | 867 | 909 | 973 | 1,029 | 1,055 |
| American Indian | | | | | | | | | | | |
| Science and engineering, total..... | 41 | 52 | 53 | 44 | 53 | 43 | 56 | 69 | 43 | 64 | 69 |
| Engineering, total..... | 1 | 6 | 7 | 4 | 7 | 4 | 6 | 11 | 2 | 6 | 10 |
| Chemical..... | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | 2 |
| Civil..... | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 |
| Electrical..... | 1 | 2 | 3 | 0 | 0 | 0 | 2 | 4 | 0 | 1 | 2 |
| Mechanical..... | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Other engineering..... | 0 | 2 | 1 | 0 | 5 | 2 | 1 | 4 | 1 | 4 | 4 |
| Sciences, total..... | 40 | 46 | 46 | 40 | 46 | 39 | 50 | 58 | 41 | 58 | 59 |
| Physical sciences, total..... | 3 | 5 | 7 | 6 | 10 | 3 | 10 | 12 | 5 | 6 | 9 |
| Astronomy..... | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| Chemistry..... | 2 | 5 | 6 | 5 | 5 | 3 | 9 | 6 | 2 | 4 | 7 |
| Physics..... | 1 | 0 | 1 | 1 | 3 | 0 | 1 | 6 | 2 | 2 | 2 |
| Other physical sciences..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Earth, atmospheric, and ocean sciences..... | 1 | 2 | 0 | 2 | 6 | 1 | 3 | 1 | 4 | 1 | 0 |
| Mathematics..... | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 1 | 2 | 2 |
| Computer sciences..... | 0 | 0 | 3 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 0 |
| Biological sciences..... | 13 | 17 | 11 | 6 | 7 | 4 | 10 | 13 | 7 | 16 | 15 |
| Agricultural sciences..... | 4 | 0 | 2 | 6 | 2 | 4 | 4 | 0 | 1 | 1 | 2 |
| Psychology..... | 10 | 9 | 16 | 7 | 11 | 19 | 13 | 15 | 15 | 12 | 14 |
| Social sciences..... | 9 | 12 | 7 | 10 | 8 | 7 | 9 | 13 | 7 | 19 | 17 |
| Non-science and -engineering, total..... | 55 | 47 | 62 | 50 | 41 | 54 | 76 | 80 | 77 | 78 | 79 |
| Health..... | 2 | 6 | 3 | 5 | 3 | 1 | 5 | 5 | 6 | 6 | 9 |
| Humanities ¹ | 6 | 6 | 10 | 4 | 7 | 6 | 10 | 18 | 10 | 20 | 18 |
| Education..... | 40 | 26 | 41 | 36 | 25 | 37 | 56 | 50 | 51 | 36 | 40 |
| Professional/other..... | 7 | 9 | 8 | 5 | 6 | 10 | 5 | 7 | 10 | 16 | 12 |
| Grand total, all fields..... | 96 | 99 | 115 | 94 | 94 | 97 | 132 | 149 | 120 | 142 | 148 |

¹ Categories differ from those published by other Federal sponsors and the National Research Council in that linguistics, history of science, American studies, and archaeology are included not in humanities but in social science.

NOTE: Details may not add to totals because of persons with unknown race/ethnicity.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-40. Total doctorates awarded to U.S. citizens and permanent residents, by major field, sex and race/ethnicity: 1985-1995

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| Sex, race/ethnicity, and field | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All sexes, all races | | | | | | | | | | | |
| Science and engineering, total..... | 14,065 | 14,016 | 14,055 | 14,499 | 14,591 | 15,363 | 15,909 | 15,940 | 16,570 | 18,184 | 18,961 |
| Engineering, total..... | 1,594 | 1,726 | 1,913 | 2,146 | 2,229 | 2,346 | 2,474 | 2,520 | 2,697 | 3,053 | 3,336 |
| Sciences, total..... | 12,471 | 12,290 | 12,142 | 12,353 | 12,362 | 13,017 | 13,435 | 13,420 | 13,873 | 15,131 | 15,625 |
| Non-science and -engineering, total.... | 10,629 | 10,503 | 10,507 | 10,414 | 10,435 | 11,240 | 11,509 | 12,016 | 12,105 | 12,693 | 12,949 |
| Grand total, all fields..... | 24,694 | 24,519 | 24,562 | 24,913 | 25,026 | 26,603 | 27,418 | 27,956 | 28,675 | 30,877 | 31,910 |
| Men, all races | | | | | | | | | | | |
| Science and engineering, total..... | 9,881 | 9,649 | 9,631 | 9,888 | 9,670 | 10,182 | 10,313 | 10,363 | 10,546 | 11,691 | 12,069 |
| Engineering, total..... | 1,458 | 1,564 | 1,739 | 1,950 | 1,954 | 2,070 | 2,158 | 2,192 | 2,349 | 2,605 | 2,818 |
| Sciences, total..... | 8,423 | 8,085 | 7,892 | 7,938 | 7,716 | 8,112 | 8,155 | 8,171 | 8,197 | 9,086 | 9,251 |
| Non-science and -engineering, total.... | 5,341 | 5,057 | 5,060 | 5,001 | 4,864 | 5,174 | 5,290 | 5,430 | 5,418 | 5,677 | 5,746 |
| Grand total, all fields..... | 15,222 | 14,706 | 14,691 | 14,889 | 14,534 | 15,356 | 15,603 | 15,793 | 15,964 | 17,368 | 17,815 |
| Men, American Indian | | | | | | | | | | | |
| Science and engineering, total..... | 21 | 33 | 32 | 29 | 33 | 25 | 37 | 42 | 25 | 40 | 44 |
| Engineering, total..... | 1 | 5 | 7 | 4 | 5 | 4 | 4 | 8 | 2 | 4 | 10 |
| Sciences, total..... | 20 | 28 | 25 | 25 | 28 | 21 | 33 | 34 | 23 | 36 | 34 |
| Non-science and -engineering, total.... | 19 | 25 | 30 | 23 | 16 | 27 | 37 | 40 | 35 | 31 | 37 |
| Grand total, all fields..... | 40 | 58 | 62 | 52 | 49 | 52 | 74 | 82 | 60 | 71 | 81 |
| Men, Asian | | | | | | | | | | | |
| Science and engineering, total..... | 620 | 621 | 694 | 694 | 745 | 757 | 806 | 926 | 1,079 | 2,169 | 2,557 |
| Engineering, total..... | 260 | 247 | 305 | 314 | 327 | 326 | 356 | 390 | 466 | 748 | 863 |
| Sciences, total..... | 360 | 374 | 389 | 380 | 418 | 431 | 450 | 536 | 613 | 1,421 | 1,694 |
| Non-science and -engineering, total.... | 146 | 145 | 130 | 176 | 160 | 152 | 166 | 208 | 203 | 300 | 311 |
| Grand total, all fields..... | 766 | 766 | 824 | 870 | 905 | 909 | 972 | 1,134 | 1,282 | 2,469 | 2,868 |
| Men, black | | | | | | | | | | | |
| Science and engineering, total..... | 236 | 187 | 189 | 224 | 213 | 225 | 266 | 237 | 260 | 282 | 289 |
| Engineering, total..... | 30 | 20 | 24 | 27 | 30 | 34 | 47 | 43 | 39 | 41 | 56 |
| Sciences, total..... | 206 | 167 | 165 | 197 | 183 | 191 | 219 | 194 | 221 | 241 | 233 |
| Non-science and -engineering, total.... | 260 | 244 | 247 | 219 | 239 | 254 | 282 | 280 | 317 | 270 | 319 |
| Grand total, all fields..... | 496 | 431 | 436 | 443 | 452 | 479 | 548 | 517 | 577 | 552 | 608 |
| Men, Hispanic | | | | | | | | | | | |
| Science and engineering, total..... | 182 | 227 | 216 | 248 | 227 | 290 | 306 | 308 | 320 | 318 | 336 |
| Engineering, total..... | 22 | 32 | 29 | 57 | 39 | 45 | 50 | 56 | 54 | 60 | 66 |
| Sciences, total..... | 160 | 195 | 187 | 191 | 188 | 245 | 256 | 252 | 266 | 258 | 270 |
| Non-science and -engineering, total.... | 168 | 146 | 166 | 137 | 149 | 159 | 152 | 174 | 197 | 199 | 200 |
| Grand total, all fields..... | 350 | 373 | 382 | 385 | 376 | 449 | 458 | 482 | 517 | 517 | 536 |
| Men, white | | | | | | | | | | | |
| Science and engineering, total..... | 8,525 | 8,333 | 8,222 | 8,428 | 8,213 | 8,648 | 8,584 | 8,623 | 8,723 | 8,731 | 8,670 |
| Engineering, total..... | 1,082 | 1,218 | 1,314 | 1,492 | 1,502 | 1,614 | 1,602 | 1,640 | 1,764 | 1,715 | 1,766 |
| Sciences, total..... | 7,443 | 7,115 | 6,908 | 6,936 | 6,711 | 7,034 | 6,982 | 6,983 | 6,959 | 7,016 | 6,904 |
| Non-science and -engineering, total.... | 4,656 | 4,391 | 4,388 | 4,368 | 4,215 | 4,513 | 4,564 | 4,642 | 4,608 | 4,825 | 4,815 |
| Grand total, all fields..... | 13,181 | 12,724 | 12,610 | 12,796 | 12,428 | 13,161 | 13,148 | 13,265 | 13,331 | 13,556 | 13,485 |

See explanatory information, if any, and SOURCE at end of table.

Appendix table 4-40. Total doctorates awarded to U.S. citizens and permanent residents, by major field, sex and race/ethnicity: 1985-1995

Page 2 of 2

| Sex, race/ethnicity, and field | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|--|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Women, all races | | | | | | | | | | | |
| Science and engineering, total..... | 4,184 | 4,367 | 4,424 | 4,611 | 4,921 | 5,181 | 5,596 | 5,577 | 6,024 | 6,493 | 6,892 |
| Engineering, total..... | 136 | 162 | 174 | 196 | 275 | 276 | 316 | 328 | 348 | 448 | 518 |
| Sciences, total..... | 4,048 | 4,205 | 4,250 | 4,415 | 4,646 | 4,905 | 5,280 | 5,249 | 5,676 | 6,045 | 6,374 |
| Non-science and -engineering, total..... | 5,288 | 5,446 | 5,447 | 5,413 | 5,571 | 6,066 | 6,219 | 6,586 | 6,687 | 7,016 | 7,203 |
| Grand total, all fields..... | 9,472 | 9,813 | 9,871 | 10,024 | 10,492 | 11,247 | 11,815 | 12,163 | 12,711 | 13,509 | 14,095 |
| Women, American Indian | | | | | | | | | | | |
| Science and engineering, total..... | 20 | 19 | 21 | 15 | 20 | 18 | 19 | 27 | 18 | 24 | 25 |
| Engineering, total..... | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 3 | 0 | 2 | 0 |
| Sciences, total..... | 20 | 18 | 21 | 15 | 18 | 18 | 17 | 24 | 18 | 22 | 25 |
| Non-science and -engineering, total..... | 36 | 22 | 32 | 27 | 25 | 27 | 39 | 40 | 42 | 47 | 42 |
| Grand total, all fields..... | 56 | 41 | 53 | 42 | 45 | 45 | 58 | 67 | 60 | 71 | 67 |
| Women, Asian | | | | | | | | | | | |
| Science and engineering, total..... | 189 | 195 | 231 | 222 | 241 | 252 | 374 | 418 | 531 | 820 | 1,109 |
| Engineering, total..... | 21 | 15 | 22 | 18 | 34 | 33 | 49 | 61 | 61 | 119 | 168 |
| Sciences, total..... | 168 | 180 | 209 | 204 | 207 | 219 | 325 | 357 | 470 | 701 | 941 |
| Non-science and -engineering, total..... | 115 | 100 | 113 | 143 | 122 | 145 | 185 | 209 | 199 | 256 | 323 |
| Grand total, all fields..... | 304 | 295 | 344 | 365 | 363 | 397 | 559 | 627 | 730 | 1,076 | 1,432 |
| Women, black | | | | | | | | | | | |
| Science and engineering, total..... | 138 | 152 | 130 | 137 | 153 | 148 | 193 | 170 | 208 | 214 | 268 |
| Engineering, total..... | 4 | 4 | 1 | 4 | 3 | 6 | 8 | 6 | 11 | 13 | 15 |
| Sciences, total..... | 134 | 148 | 129 | 133 | 150 | 142 | 185 | 164 | 197 | 201 | 253 |
| Non-science and -engineering, total..... | 409 | 373 | 344 | 390 | 357 | 422 | 419 | 426 | 492 | 508 | 579 |
| Grand total, all fields..... | 547 | 525 | 474 | 527 | 510 | 570 | 612 | 596 | 700 | 722 | 847 |
| Women, Hispanic | | | | | | | | | | | |
| Science and engineering, total..... | 114 | 118 | 141 | 149 | 155 | 178 | 186 | 205 | 222 | 230 | 232 |
| Engineering, total..... | 0 | 3 | 5 | 6 | 8 | 9 | 10 | 15 | 12 | 6 | 11 |
| Sciences, total..... | 114 | 115 | 136 | 143 | 147 | 169 | 176 | 190 | 210 | 224 | 221 |
| Non-science and -engineering, total..... | 170 | 188 | 185 | 159 | 163 | 210 | 223 | 222 | 234 | 282 | 287 |
| Grand total, all fields..... | 284 | 306 | 326 | 308 | 318 | 388 | 409 | 427 | 456 | 512 | 519 |
| Women, white | | | | | | | | | | | |
| Science and engineering, total..... | 3,644 | 3,818 | 3,830 | 4,028 | 4,288 | 4,522 | 4,739 | 4,703 | 5,012 | 5,159 | 5,209 |
| Engineering, total..... | 106 | 136 | 144 | 163 | 224 | 226 | 235 | 240 | 261 | 305 | 320 |
| Sciences, total..... | 3,538 | 3,682 | 3,686 | 3,865 | 4,064 | 4,296 | 4,504 | 4,463 | 4,751 | 4,854 | 4,889 |
| Non-science and -engineering, total..... | 4,481 | 4,694 | 4,682 | 4,637 | 4,854 | 5,196 | 5,292 | 5,631 | 5,684 | 5,870 | 5,914 |
| Grand total, all fields..... | 8,125 | 8,512 | 8,512 | 8,665 | 9,142 | 9,718 | 10,031 | 10,334 | 10,696 | 11,029 | 11,123 |

NOTE: Details may not add to totals because of persons whose race/ethnicity is unknown.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-41. Doctorates in science and engineering awarded to U.S. citizens and permanent residents, by field, primary mechanism of support, and race/ethnicity: 1995

| Field and primary mechanism of support | Total | White | Asian | Black | Hispanic | American Indian | Unknown race | Page 1 of 2 |
|--|--------|--------|-------|-------|----------|-----------------|--------------|-------------|
| Total, science and engineering | | | | | | | | |
| All mechanisms..... | 18,961 | 13,879 | 3,666 | 557 | 568 | 69 | 222 | |
| Fellowship/traineeship..... | 2,038 | 1,499 | 278 | 131 | 96 | 12 | 22 | |
| Research assistantship..... | 5,460 | 3,703 | 1,518 | 59 | 106 | 16 | 58 | |
| Teaching assistantship..... | 2,596 | 1,900 | 576 | 40 | 54 | 8 | 18 | |
| Other sources, unknown..... | 8,867 | 6,777 | 1,294 | 327 | 312 | 33 | 124 | |
| Physical sciences | | | | | | | | |
| All mechanisms..... | 2,840 | 1,921 | 751 | 43 | 73 | 9 | 43 | |
| Fellowship/traineeship..... | 189 | 144 | 18 | 11 | 12 | 2 | 2 | |
| Research assistantship..... | 1,268 | 858 | 355 | 4 | 25 | 6 | 20 | |
| Teaching assistantship..... | 478 | 312 | 141 | 5 | 17 | 0 | 3 | |
| Other sources, unknown..... | 905 | 607 | 237 | 23 | 19 | 1 | 18 | |
| Earth, atmospheric, and ocean sciences | | | | | | | | |
| All mechanisms..... | 593 | 464 | 104 | 3 | 12 | 0 | 10 | |
| Fellowship/traineeship..... | 33 | 27 | 4 | 0 | 2 | 0 | 0 | |
| Research assistantship..... | 249 | 178 | 64 | 0 | 4 | 0 | 3 | |
| Teaching assistantship..... | 62 | 54 | 8 | 0 | 0 | 0 | 0 | |
| Other sources, unknown..... | 249 | 205 | 28 | 3 | 6 | 0 | 7 | |
| Mathematical and computer sciences | | | | | | | | |
| All mechanisms..... | 1,388 | 988 | 346 | 16 | 21 | 2 | 15 | |
| Fellowship/traineeship..... | 93 | 76 | 6 | 4 | 4 | 1 | 2 | |
| Research assistantship..... | 261 | 182 | 73 | 0 | 3 | 0 | 3 | |
| Teaching assistantship..... | 463 | 307 | 145 | 4 | 4 | 0 | 3 | |
| Other sources, unknown..... | 571 | 423 | 122 | 8 | 10 | 1 | 7 | |
| Agricultural sciences | | | | | | | | |
| All mechanisms..... | 598 | 473 | 78 | 17 | 21 | 2 | 7 | |
| Fellowship/traineeship..... | 34 | 25 | 2 | 5 | 2 | 0 | 0 | |
| Research assistantship..... | 274 | 209 | 53 | 3 | 5 | 1 | 3 | |
| Teaching assistantship..... | 26 | 23 | 1 | 0 | 2 | 0 | 0 | |
| Other sources, unknown..... | 264 | 216 | 22 | 9 | 12 | 1 | 4 | |
| Biological sciences | | | | | | | | |
| All mechanisms..... | 4,321 | 3,116 | 924 | 105 | 126 | 15 | 35 | |
| Fellowship/traineeship..... | 896 | 663 | 172 | 26 | 28 | 1 | 6 | |
| Research assistantship..... | 1,342 | 883 | 382 | 25 | 39 | 6 | 7 | |
| Teaching assistantship..... | 448 | 341 | 86 | 9 | 10 | 0 | 2 | |
| Other sources, unknown..... | 1,635 | 1,229 | 284 | 45 | 49 | 8 | 20 | |
| Psychology | | | | | | | | |
| All mechanisms..... | 3,169 | 2,715 | 121 | 150 | 145 | 14 | 24 | |
| Fellowship/traineeship..... | 205 | 137 | 6 | 33 | 24 | 4 | 1 | |
| Research assistantship..... | 365 | 327 | 17 | 12 | 7 | 0 | 2 | |
| Teaching assistantship..... | 337 | 301 | 20 | 8 | 4 | 3 | 1 | |
| Other sources, unknown..... | 2,262 | 1,950 | 78 | 97 | 110 | 7 | 20 | |
| Social sciences | | | | | | | | |
| All mechanisms..... | 2,716 | 2,116 | 311 | 152 | 93 | 17 | 27 | |
| Fellowship/traineeship..... | 339 | 249 | 36 | 30 | 15 | 4 | 5 | |
| Research assistantship..... | 286 | 235 | 41 | 3 | 6 | 0 | 1 | |
| Teaching assistantship..... | 552 | 431 | 86 | 12 | 13 | 5 | 5 | |
| Other sources, unknown..... | 1,539 | 1,201 | 148 | 107 | 59 | 8 | 16 | |
| Engineering | | | | | | | | |
| All mechanisms..... | 3,336 | 2,086 | 1,031 | 71 | 77 | 10 | 61 | |
| Fellowship/traineeship..... | 249 | 178 | 34 | 22 | 9 | 0 | 6 | |
| Research assistantship..... | 1,415 | 831 | 533 | 12 | 17 | 3 | 19 | |
| Teaching assistantship..... | 230 | 131 | 89 | 2 | 4 | 0 | 4 | |
| Other sources, unknown..... | 1,442 | 946 | 375 | 35 | 47 | 7 | 32 | |

See explanatory notes and SOURCES at end of table.

Appendix table 4-41. Doctorates in science and engineering awarded to U.S. citizens and permanent residents, by field, primary mechanism of support, and race/ethnicity: 1995

Page 2 of 2

| Field and primary mechanism of support | Total | White | Asian | Black | Hispanic | American Indian | Unknown race |
|--|-------|-------|-------|-------|----------|-----------------|--------------|
| Percentage distribution: | | | | | | | |
| Total, science and engineering | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 10.7 | 10.8 | 7.6 | 23.5 | 16.9 | 17.4 | 9.9 |
| Research assistantship..... | 28.8 | 26.7 | 41.4 | 10.6 | 18.7 | 23.2 | 26.1 |
| Teaching assistantship..... | 13.7 | 13.7 | 15.7 | 7.2 | 9.5 | 11.6 | 8.1 |
| Other sources, unknown..... | 46.8 | 48.8 | 35.3 | 58.7 | 54.9 | 47.8 | 55.9 |
| Physical sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 6.7 | 7.5 | 2.4 | 25.6 | 16.4 | 22.2 | 4.7 |
| Research assistantship..... | 44.6 | 44.7 | 47.3 | 9.3 | 34.2 | 66.7 | 46.5 |
| Teaching assistantship..... | 16.8 | 16.2 | 18.8 | 11.6 | 23.3 | 0.0 | 7.0 |
| Other sources, unknown..... | 31.9 | 31.6 | 31.6 | 53.5 | 26.0 | 11.1 | 41.9 |
| Earth, atmospheric, and ocean sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 0.0 | 100.0 |
| Fellowship/traineeship..... | 5.6 | 5.8 | 3.8 | 0.0 | 16.7 | 0.0 | 0.0 |
| Research assistantship..... | 42.0 | 38.4 | 61.5 | 0.0 | 33.3 | 0.0 | 30.0 |
| Teaching assistantship..... | 10.5 | 11.6 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other sources, unknown..... | 42.0 | 44.2 | 26.9 | 100.0 | 50.0 | 0.0 | 70.0 |
| Mathematical and computer sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 6.7 | 7.7 | 1.7 | 25.0 | 19.0 | 50.0 | 13.3 |
| Research assistantship..... | 18.8 | 18.4 | 21.1 | 0.0 | 14.3 | 0.0 | 20.0 |
| Teaching assistantship..... | 33.4 | 31.1 | 41.9 | 25.0 | 19.0 | 0.0 | 20.0 |
| Other sources, unknown..... | 41.1 | 42.8 | 35.3 | 50.0 | 47.6 | 50.0 | 46.7 |
| Agricultural sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 5.7 | 5.3 | 2.6 | 29.4 | 9.5 | 0.0 | 0.0 |
| Research assistantship..... | 45.8 | 44.2 | 67.9 | 17.6 | 23.8 | 50.0 | 42.9 |
| Teaching assistantship..... | 4.3 | 4.9 | 1.3 | 0.0 | 9.5 | 0.0 | 0.0 |
| Other sources, unknown..... | 44.1 | 45.7 | 28.2 | 52.9 | 57.1 | 50.0 | 57.1 |
| Biological sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 20.7 | 21.3 | 18.6 | 24.8 | 22.2 | 6.7 | 17.1 |
| Research assistantship..... | 31.1 | 28.3 | 41.3 | 23.8 | 31.0 | 40.0 | 20.0 |
| Teaching assistantship..... | 10.4 | 10.9 | 9.3 | 8.6 | 7.9 | 0.0 | 5.7 |
| Other sources, unknown..... | 37.8 | 39.4 | 30.7 | 42.9 | 38.9 | 53.3 | 57.1 |
| Psychology | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 6.5 | 5.0 | 5.0 | 22.0 | 16.6 | 28.6 | 4.2 |
| Research assistantship..... | 11.5 | 12.0 | 14.0 | 8.0 | 4.8 | 0.0 | 8.3 |
| Teaching assistantship..... | 10.6 | 11.1 | 16.5 | 5.3 | 2.8 | 21.4 | 4.2 |
| Other sources, unknown..... | 71.4 | 71.8 | 64.5 | 64.7 | 75.9 | 50.0 | 83.3 |
| Social sciences | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 12.5 | 11.8 | 11.6 | 19.7 | 16.1 | 23.5 | 18.5 |
| Research assistantship..... | 10.5 | 11.1 | 13.2 | 2.0 | 6.5 | 0.0 | 3.7 |
| Teaching assistantship..... | 20.3 | 20.4 | 27.7 | 7.9 | 14.0 | 29.4 | 18.5 |
| Other sources, unknown..... | 56.7 | 56.8 | 47.6 | 70.4 | 63.4 | 47.1 | 59.3 |
| Engineering | | | | | | | |
| All mechanisms..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Fellowship/traineeship..... | 7.5 | 8.5 | 3.3 | 31.0 | 11.7 | 0.0 | 9.8 |
| Research assistantship..... | 42.4 | 39.8 | 51.7 | 16.9 | 22.1 | 30.0 | 31.1 |
| Teaching assistantship..... | 6.9 | 6.3 | 8.6 | 2.8 | 5.2 | 0.0 | 6.6 |
| Other sources, unknown..... | 43.2 | 45.3 | 36.4 | 49.3 | 61.0 | 70.0 | 52.5 |

NOTE: Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995

Appendix table 4-42. Recipients of science and engineering doctorates, by disability status: 1989-1995, selected years

| Disability status | 1989 | 1993 | 1994 | 1995 | Page 1 of 1 |
|--------------------------------------|--------|--------|--------|--------|-------------|
| Total, science and engineering..... | 21,731 | 25,441 | 26,202 | 26,515 | |
| Number reporting disability..... | 200 | 331 | 373 | 355 | |
| Percentage reporting disability..... | 0.9 | 1.3 | 1.4 | 1.3 | |
| Science..... | 17,188 | 19,743 | 20,380 | 20,508 | |
| Number reporting disability..... | 175 | 286 | 314 | 292 | |
| Percentage reporting disability..... | 1.0 | 1.4 | 1.5 | 1.4 | |
| Engineering..... | 4,543 | 5,698 | 5,822 | 6,007 | |
| Number reporting disability..... | 25 | 45 | 59 | 63 | |
| Percentage reporting disability..... | 0.6 | 0.8 | 1.0 | 1.0 | |

NOTE: Because survey forms differed prior to 1989 and in 1990 and 1991, and because some respondents in 1992 filled out the 1991 form, data for those years are not included in the table.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-43. Recipients of science and engineering doctorates, by major field and disability status: 1995

Page 1 of 1

| Major field | All recipients | | Recipients with disabilities | | Recipients without disabilities | |
|---------------------------------------|----------------|---------|------------------------------|---------|---------------------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Total, science and engineering..... | 26,515 | 100.0 | 355 | 100.0 | 26,160 | 100.0 |
| Total, science..... | 20,508 | 77.3 | 292 | 82.3 | 20,216 | 77.3 |
| Psychology..... | 3,419 | 12.9 | 72 | 20.3 | 3,347 | 12.8 |
| Social sciences..... | 3,877 | 14.6 | 70 | 19.7 | 3,807 | 14.6 |
| Physical sciences ¹ | 4,618 | 17.4 | 50 | 14.1 | 4,568 | 17.5 |
| Mathematics and statistics..... | 1,190 | 4.5 | 10 | 2.8 | 1,180 | 4.5 |
| Computer science..... | 998 | 3.8 | 13 | 3.7 | 985 | 3.8 |
| Agricultural/biological sciences..... | 6,406 | 24.2 | 77 | 21.7 | 6,329 | 24.2 |
| Total, engineering..... | 6,007 | 22.7 | 63 | 17.7 | 5,944 | 22.7 |

¹ Includes earth, atmospheric, and ocean sciences.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-44. Doctorate recipients, by disability status and type of disability: 1989 and 1995

| Disability status and type | 1989 | 1995 | Page 1 of 1 |
|--------------------------------------|--------|--------|-------------|
| Total, all recipients..... | 21,731 | 26,515 | |
| Persons without disabilities..... | 21,531 | 26,160 | |
| Persons with disabilities..... | 200 | 355 | |
| Auditory..... | 35 | 45 | |
| Orthopedic..... | 46 | 95 | |
| Visual..... | 59 | 97 | |
| Vocal..... | 3 | 5 | |
| Other or more than one handicap..... | 42 | 86 | |
| Unspecified handicap..... | 15 | 27 | |

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 4-45. Doctorate recipients in science and engineering,
by sex and type of disability: 1995**

| Disability status and type | Total | Men | Women |
|--------------------------------------|--------|--------|-------|
| Total, all recipients..... | 26,515 | 18,242 | 8,273 |
| Persons without disabilities..... | 26,160 | 18,008 | 8,152 |
| Persons with disabilities..... | 355 | 234 | 121 |
| Auditory..... | 45 | 34 | 11 |
| Orthopedic..... | 95 | 61 | 34 |
| Visual..... | 97 | 70 | 27 |
| Vocal..... | 5 | 3 | 2 |
| Other or more than one handicap..... | 86 | 48 | 38 |
| Unspecified handicap..... | 27 | 18 | 9 |

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 4-46. Years between bachelor's and doctoral degrees for scientists and engineers, by disability status and sex: 1995

Page 1 of 1

| Years between degrees | Total recipients | | | Recipients with disabilities | | | Recipients without disabilities | | |
|--------------------------|------------------|--------|-------|------------------------------|-------|-------|---------------------------------|--------|-------|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| Total..... | 26,515 | 18,242 | 8,273 | 355 | 234 | 121 | 26,160 | 18,008 | 8,152 |
| 0 to 5..... | 2,259 | 1,583 | 676 | 18 | 14 | 4 | 2,241 | 1,569 | 672 |
| 6 to 10..... | 12,956 | 8,965 | 3,991 | 149 | 103 | 46 | 12,807 | 8,862 | 3,945 |
| 11 to 15..... | 6,454 | 4,620 | 1,834 | 88 | 61 | 27 | 6,366 | 4,559 | 1,807 |
| 16 to 20..... | 2,035 | 1,304 | 731 | 40 | 24 | 16 | 1,995 | 1,280 | 715 |
| 21 or more years..... | 1,533 | 819 | 714 | 54 | 28 | 26 | 1,479 | 791 | 688 |
| Unknown..... | 1,278 | 951 | 327 | 6 | 4 | 2 | 1,272 | 947 | 325 |
| Percentage distribution: | | | | | | | | | |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 0 to 5..... | 8.5 | 8.7 | 8.2 | 5.1 | 6.0 | 3.3 | 8.6 | 8.7 | 8.2 |
| 6 to 10..... | 48.9 | 49.1 | 48.2 | 42.0 | 44.0 | 38.0 | 49.0 | 49.2 | 48.4 |
| 11 to 15..... | 24.3 | 25.3 | 22.2 | 24.8 | 26.1 | 22.3 | 24.3 | 25.3 | 22.2 |
| 16 to 20..... | 7.7 | 7.1 | 8.8 | 11.3 | 10.3 | 13.2 | 7.6 | 7.1 | 8.8 |
| 21 or more years..... | 5.8 | 4.5 | 8.6 | 15.2 | 12.0 | 21.5 | 5.7 | 4.4 | 8.4 |
| Unknown..... | 4.8 | 5.2 | 4.0 | 1.7 | 1.7 | 1.7 | 4.9 | 5.3 | 4.0 |

NOTE: Total includes persons with unknown or unreported disability status.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995.

Appendix table 4-47. Years between bachelor's and doctoral degrees for scientists and engineers, by citizenship status and race/ethnicity of U.S. citizens and permanent residents: 1995

Page 1 of 1

| Years | Total | Total non-permanent residents | Total U.S. citizens and permanent residents | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian | Unknown or unreported |
|----------------------|--------|-------------------------------|---|---------------------|-------|---------------------|----------|-----------------|-----------------------|
| Total | 26,515 | 7,554 | 18,961 | 13,879 | 3,666 | 557 | 568 | 69 | 222 |
| 1 to 5..... | 2,259 | 482 | 1,777 | 1,500 | 169 | 35 | 44 | 8 | 21 |
| 6 to 10..... | 12,956 | 3,690 | 9,266 | 7,052 | 1,552 | 223 | 298 | 36 | 105 |
| 11 to 15..... | 6,454 | 1,977 | 4,477 | 2,659 | 1,485 | 148 | 122 | 14 | 49 |
| 16 to 20..... | 2,035 | 418 | 1,617 | 1,265 | 192 | 82 | 51 | 6 | 21 |
| More than 20..... | 1,533 | 136 | 1,397 | 1,181 | 101 | 56 | 42 | 5 | 12 |
| Unknown..... | 1,278 | 851 | 427 | 222 | 167 | 13 | 11 | 0 | 14 |
| Percent distribution | | | | | | | | | |
| 1 to 5..... | 8.5 | 6.4 | 9.4 | 10.8 | 4.6 | 6.3 | 7.7 | 11.6 | 9.5 |
| 6 to 10..... | 48.9 | 48.8 | 48.9 | 50.8 | 42.3 | 40.0 | 52.5 | 52.2 | 47.3 |
| 11 to 15..... | 24.3 | 26.2 | 23.6 | 19.2 | 40.5 | 26.6 | 21.5 | 20.3 | 22.1 |
| 16 to 20..... | 7.7 | 5.5 | 8.5 | 9.1 | 5.2 | 14.7 | 9.0 | 8.7 | 9.5 |
| More than 20..... | 5.8 | 1.8 | 7.4 | 8.5 | 2.8 | 10.1 | 7.4 | 7.2 | 5.4 |
| Unknown..... | 4.8 | 11.3 | 2.3 | 1.6 | 4.6 | 2.3 | 1.9 | 0.0 | 6.3 |

NOTE: Data for non-resident aliens include doctorate recipients whose citizenship is unknown.

SOURCE: National Science Foundation/SRS. Survey of Earned Doctorates 1995.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-1. Scientists and engineers in the labor force, by occupation, sex, and highest degree: 1995

Page 1 of 1

| Occupation | Total | | Bachelor's | | Master's | | Doctorate | |
|--|---------|-----------|------------|-----------|----------|---------|-----------|---------|
| | Women | Men | Women | Men | Women | Men | Women | Men |
| Total science and engineering..... | 728,000 | 2,528,200 | 385,300 | 1,498,000 | 237,600 | 678,100 | 95,800 | 329,900 |
| Computer/mathematical sciences..... | 279,100 | 687,100 | 189,600 | 445,800 | 79,500 | 194,100 | 9,800 | 44,800 |
| Computer science..... | 240,900 | 613,900 | 178,500 | 426,700 | 58,500 | 166,000 | 3,600 | 18,900 |
| Mathematical science..... | 12,700 | 25,800 | 5,400 | 11,200 | 5,700 | 8,600 | 1,600 | 6,100 |
| Postsecondary computer/mathematics teachers..... | 25,500 | 47,400 | 5,600 | 7,900 | 15,300 | 19,500 | 4,600 | 19,900 |
| Life sciences..... | 108,800 | 202,700 | 47,800 | 76,100 | 28,600 | 36,600 | 27,700 | 76,700 |
| Agricultural/food science..... | 11,600 | 32,600 | 7,600 | 17,300 | 2,500 | 7,100 | 1,500 | 8,200 |
| Biological sciences..... | 69,900 | 102,900 | 32,500 | 38,800 | 16,100 | 17,500 | 17,800 | 41,700 |
| Environmental science..... | 2,900 | 17,800 | 2,000 | 12,000 | 800 | 5,100 | 100 | 700 |
| Postsecondary life science teachers.... | 24,400 | 49,400 | 5,800 | 8,000 | 9,300 | 7,000 | 8,300 | 26,200 |
| Physical sciences..... | 60,900 | 220,900 | 34,300 | 96,700 | 16,900 | 52,900 | 9,800 | 70,900 |
| Chemistry..... | 29,700 | 84,200 | 19,600 | 46,700 | 6,100 | 14,800 | 4,000 | 22,600 |
| Earth/geology/oceanography..... | 13,300 | 59,800 | 6,700 | 30,400 | 5,300 | 20,100 | 1,300 | 9,300 |
| Physics and astronomy..... | 3,500 | 26,600 | 1,000 | 6,400 | 1,600 | 6,500 | 800 | 13,700 |
| Other physical sciences..... | 4,700 | 12,600 | 3,100 | 6,200 | 1,300 | 3,900 | 300 | 2,400 |
| Postsecondary physical science teachers..... | 9,700 | 37,700 | 3,800 | 7,200 | 2,600 | 7,600 | 3,300 | 22,800 |
| Social sciences..... | 160,600 | 160,900 | 32,000 | 29,600 | 81,300 | 56,700 | 43,000 | 70,900 |
| Economics..... | 9,600 | 24,500 | 4,100 | 7,200 | 4,000 | 11,600 | 1,500 | 5,600 |
| Political science..... | 4,000 | 5,000 | 2,100 | 3,000 | 1,600 | 1,100 | 300 | 900 |
| Psychology..... | 102,700 | 66,300 | 16,800 | 9,100 | 60,300 | 29,600 | 22,800 | 25,600 |
| Sociology/anthropology..... | 7,700 | 8,600 | 3,300 | 4,500 | 3,200 | 2,300 | 1,300 | 1,800 |
| Other social science..... | 6,300 | 6,400 | 1,800 | 2,000 | 2,200 | 2,700 | 1,400 | 1,600 |
| Postsecondary social science teachers..... | 30,200 | 50,100 | 3,800 | 3,800 | 10,100 | 9,400 | 15,700 | 35,300 |
| Engineering..... | 118,600 | 1,256,600 | 81,700 | 849,800 | 31,400 | 337,800 | 5,500 | 66,600 |
| Aerospace engineering..... | 4,600 | 70,600 | 2,900 | 41,000 | 1,500 | 25,300 | 200 | 4,200 |
| Chemical engineering..... | 9,400 | 63,500 | 6,300 | 40,300 | 2,200 | 17,700 | 900 | 5,500 |
| Civil engineering..... | 18,500 | 184,500 | 14,000 | 131,700 | 4,100 | 48,600 | 300 | 3,600 |
| Electrical engineering..... | 23,300 | 346,300 | 16,400 | 233,400 | 6,300 | 98,400 | 500 | 13,400 |
| Industrial engineering..... | 9,600 | 62,300 | 7,100 | 46,800 | 2,400 | 14,700 | 100 | 800 |
| Mechanical engineering..... | 15,000 | 246,200 | 10,300 | 185,100 | 4,000 | 53,300 | 700 | 7,400 |
| Other engineering..... | 35,900 | 254,000 | 24,500 | 166,300 | 9,800 | 72,200 | 1,600 | 15,200 |
| Postsecondary engineering teachers... | 2,400 | 29,100 | 200 | 5,100 | 1,000 | 7,500 | 1,200 | 16,400 |

NOTES: Because of rounding, details may not add to totals. Total includes "professional and other degrees."

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-2. Employed scientists and engineers, by sex, race/ethnicity, disability status, and age: 1995

| Sex, race/ethnicity, and disability status | Total | Less than 30 | 30-39 | 40-49 | 50 or over | Page 1 of 1 |
|--|-----------|--------------|-----------|---------|------------|-------------|
| Total..... | 3,185,600 | 430,900 | 1,124,000 | 954,500 | 676,100 | |
| Sex | | | | | | |
| Women..... | 713,500 | 129,700 | 277,500 | 209,300 | 97,000 | |
| Men..... | 2,472,100 | 301,200 | 846,600 | 745,200 | 579,100 | |
| Race/ethnicity | | | | | | |
| Hispanic..... | 90,100 | 14,900 | 41,900 | 20,100 | 13,200 | |
| White, non-Hispanic..... | 2,673,600 | 344,400 | 919,600 | 819,000 | 590,600 | |
| Black, non-Hispanic..... | 107,500 | 21,000 | 39,000 | 31,100 | 16,400 | |
| Asian..... | 304,600 | 49,600 | 119,900 | 81,500 | 53,600 | |
| American Indian..... | 8,000 | 1,100 | 2,900 | 2,100 | 1,900 | |
| Other..... | 1,700 | - | 700 | 600 | 500 | |
| Disability status | | | | | | |
| Persons without disabilities..... | 3,031,200 | 423,800 | 1,094,700 | 898,000 | 614,700 | |
| Persons with disabilities..... | 154,300 | 7,100 | 29,300 | 56,500 | 61,400 | |
| Percentage distribution: | | | | | | |
| Total..... | 100.0 | 13.5 | 35.3 | 30.0 | 21.2 | |
| Sex | | | | | | |
| Women..... | 100.0 | 18.2 | 38.9 | 29.3 | 13.6 | |
| Men..... | 100.0 | 12.2 | 34.2 | 30.1 | 23.4 | |
| Race/ethnicity | | | | | | |
| Hispanic..... | 100.0 | 16.5 | 46.5 | 22.3 | 14.7 | |
| White, non-Hispanic..... | 100.0 | 12.9 | 34.4 | 30.6 | 22.1 | |
| Black, non-Hispanic..... | 100.0 | 19.5 | 36.3 | 28.9 | 15.3 | |
| Asian..... | 100.0 | 16.3 | 39.4 | 26.8 | 17.6 | |
| American Indian..... | 100.0 | 13.8 | 36.3 | 26.3 | 23.8 | |
| Other..... | 100.0 | - | 39.7 | 33.1 | 27.2 | |
| Disability status | | | | | | |
| Persons without disabilities..... | 100.0 | 14.0 | 36.1 | 29.6 | 20.3 | |
| Persons with disabilities..... | 100.0 | 4.6 | 19.0 | 36.6 | 39.8 | |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-3. Employment status of scientists and engineers, by age, sex, and race/ethnicity: 1995

Page 1 of 1

| Age, sex, and race/ethnicity | Employment status | | | | | |
|------------------------------|-------------------|-----------------------------|----------------------------------|--------------------|--------------|--------------------|
| | Total | Full-time employed in field | Full-time employed outside field | Part-time employed | Not employed | Not in labor force |
| All ages..... | 3,708,400 | 2,656,700 | 285,900 | 243,000 | 70,600 | 452,200 |
| Women..... | 835,500 | 524,600 | 71,700 | 117,100 | 14,500 | 107,500 |
| Men..... | 2,872,900 | 2,132,100 | 214,100 | 125,800 | 56,100 | 344,800 |
| White..... | 3,138,900 | 2,218,400 | 246,200 | 209,000 | 54,600 | 410,600 |
| Asian..... | 338,100 | 264,500 | 21,200 | 19,000 | 10,600 | 22,900 |
| Black..... | 119,100 | 87,600 | 11,700 | 8,200 | 2,700 | 8,900 |
| Hispanic..... | 102,000 | 77,600 | 6,300 | 6,200 | 2,600 | 9,300 |
| American Indian..... | 8,600 | 7,000 | 400 | 600 | 100 | 500 |
| Younger than 35..... | 1,051,800 | 827,900 | 58,400 | 91,400 | 16,000 | 58,200 |
| Women..... | 305,100 | 209,500 | 16,700 | 43,300 | 4,800 | 30,900 |
| Men..... | 746,700 | 618,400 | 41,700 | 48,100 | 11,200 | 27,300 |
| White..... | 841,600 | 668,600 | 47,000 | 70,400 | 11,100 | 44,600 |
| Asian..... | 124,100 | 93,500 | 6,400 | 13,100 | 3,000 | 8,100 |
| Black..... | 42,900 | 32,600 | 3,100 | 4,200 | 600 | 2,400 |
| Hispanic..... | 40,400 | 30,800 | 1,800 | 3,500 | 1,300 | 3,000 |
| American Indian..... | 2,700 | 2,300 | 100 | 200 | - | 100 |
| 35 to 44..... | 1,146,900 | 922,500 | 108,400 | 54,700 | 18,900 | 42,600 |
| Women..... | 292,600 | 183,200 | 29,700 | 39,600 | 6,200 | 34,000 |
| Men..... | 854,300 | 739,300 | 78,700 | 15,100 | 12,700 | 8,600 |
| White..... | 961,900 | 766,700 | 95,400 | 48,900 | 14,400 | 36,300 |
| Asian..... | 107,300 | 91,200 | 7,200 | 3,000 | 2,800 | 3,200 |
| Black..... | 38,900 | 32,300 | 3,200 | 1,200 | 1,200 | 900 |
| Hispanic..... | 34,600 | 28,700 | 2,300 | 1,400 | 300 | 1,900 |
| American Indian..... | 3,000 | 2,500 | 200 | 100 | 100 | 100 |
| 45 to 54..... | 776,300 | 612,700 | 87,100 | 37,000 | 16,400 | 23,000 |
| Women..... | 161,900 | 104,200 | 20,000 | 23,600 | 2,300 | 11,800 |
| Men..... | 614,400 | 508,500 | 67,100 | 13,400 | 14,100 | 11,200 |
| White..... | 667,800 | 526,400 | 74,700 | 33,900 | 13,100 | 19,600 |
| Asian..... | 68,700 | 56,300 | 6,400 | 1,100 | 2,600 | 2,300 |
| Black..... | 23,400 | 16,600 | 4,300 | 1,400 | 500 | 700 |
| Hispanic..... | 14,900 | 12,100 | 1,700 | 600 | 200 | 300 |
| American Indian..... | 1,500 | 1,300 | - | 100 | - | 100 |
| 55 or older..... | 733,500 | 293,700 | 32,000 | 59,800 | 19,300 | 328,500 |
| Women..... | 75,900 | 27,800 | 5,400 | 10,600 | 1,200 | 30,800 |
| Men..... | 657,600 | 265,900 | 26,600 | 49,200 | 18,100 | 297,700 |
| White..... | 667,600 | 256,700 | 29,100 | 55,800 | 16,000 | 310,100 |
| Asian..... | 38,000 | 23,500 | 1,200 | 1,800 | 2,200 | 9,300 |
| Black..... | 13,900 | 6,100 | 1,100 | 1,300 | 300 | 5,000 |
| Hispanic..... | 12,100 | 6,000 | 500 | 700 | 800 | 4,000 |
| American Indian..... | 1,400 | 900 | 100 | 200 | - | 200 |

KEY: - = Fewer than 50 estimated.

NOTE: Because of rounding, details may not add to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS. 1995 SESTAT Integrated Data Files.

Appendix table 5-4. Scientists and engineers who are unemployed or out of the labor force, by reason for not working, sex, race/ethnicity, and disability status: 1995

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| Reason for not working | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|--|---------|---------|---------|----------------|--------|--------|----------|-----------------|------------------------------|---------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without Disabilities | Persons with Disabilities |
| Total..... | 522,800 | 122,000 | 400,900 | 465,200 | 33,500 | 11,600 | 11,800 | 600 | 441,900 | 80,900 |
| Family responsibilities..... | 53,400 | 49,100 | 4,300 | 46,400 | 4,600 | 700 | 1,500 | 100 | 51,600 | 1,700 |
| Chronic illness or permanent disability..... | 27,300 | 5,300 | 22,000 | 24,300 | 1,700 | 700 | 500 | 100 | 10,000 | 17,300 |
| Suitable job not available..... | 38,000 | 10,000 | 28,000 | 29,200 | 5,800 | 1,200 | 1,800 | - | 34,100 | 3,900 |
| Did not need or want to work.... | 52,500 | 28,500 | 24,000 | 46,800 | 3,400 | 900 | 1,300 | - | 49,800 | 2,700 |
| Other reason..... | 42,000 | 17,600 | 24,400 | 36,500 | 2,600 | 1,400 | 1,500 | 100 | 38,300 | 3,700 |
| Retired..... | 326,400 | 25,600 | 300,800 | 308,300 | 9,400 | 4,900 | 3,700 | 200 | 265,400 | 61,000 |
| Student..... | 49,800 | 17,700 | 32,100 | 34,500 | 9,300 | 2,300 | 3,600 | 200 | 48,400 | 1,500 |
| On layoff from a job..... | 36,900 | 6,300 | 30,600 | 29,000 | 5,800 | 1,100 | 1,000 | - | 33,600 | 3,300 |
| Percentage distribution: | | | | | | | | | | |
| Total..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Family responsibilities..... | 10.2 | 40.2 | 1.1 | 10.0 | 13.7 | 6.0 | 12.7 | 16.7 | 11.7 | 2.1 |
| Chronic illness or permanent disability..... | 5.2 | 4.3 | 5.5 | 5.2 | 5.1 | 6.0 | 4.2 | 16.7 | 2.3 | 21.4 |
| Suitable job not available..... | 7.3 | 8.2 | 7.0 | 6.3 | 17.3 | 10.3 | 15.3 | - | 7.7 | 4.8 |
| Did not need or want to work.... | 10.0 | 23.4 | 6.0 | 10.1 | 10.1 | 7.8 | 11.0 | - | 11.3 | 3.3 |
| Other reason..... | 8.0 | 14.4 | 6.1 | 7.8 | 7.8 | 12.1 | 12.7 | 16.7 | 8.7 | 4.6 |
| Retired..... | 62.4 | 21.0 | 75.0 | 66.3 | 28.1 | 42.2 | 31.4 | 33.3 | 60.1 | 75.4 |
| Student..... | 9.5 | 14.5 | 8.0 | 7.4 | 27.8 | 19.8 | 30.5 | 33.3 | 11.0 | 1.9 |
| On layoff from a job..... | 7.1 | 5.2 | 7.6 | 6.2 | 17.3 | 9.5 | 8.5 | - | 7.6 | 4.1 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding and because respondents could select more than one reason, details may not add to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-5. Employed scientists and engineers who are working outside their field, by most important reason for working outside field, sex, and occupation: 1995

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| Reason for working outside field | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|---|---------|--------|---------|----------------|--------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Total..... | 303,900 | 81,100 | 222,800 | 262,400 | 22,200 | 12,200 | 6,600 | 500 | 286,100 | 17,800 |
| Pay, promotion opportunities..... | 109,500 | 30,000 | 79,500 | 95,000 | 6,300 | 5,300 | 2,800 | 100 | 102,700 | 6,800 |
| Working conditions..... | 18,200 | 3,700 | 14,400 | 14,100 | 2,800 | 900 | 300 | - | 16,700 | 1,400 |
| Job location..... | 17,400 | 4,900 | 12,500 | 15,200 | 1,300 | 600 | 200 | - | 16,700 | 700 |
| Change in career or professional interests..... | 69,900 | 18,700 | 51,200 | 63,200 | 4,100 | 1,100 | 1,500 | - | 67,200 | 2,700 |
| Family-related reasons..... | 11,100 | 5,700 | 5,400 | 9,700 | 700 | 300 | 400 | 100 | 10,400 | 700 |
| Job in field not available..... | 48,700 | 13,000 | 35,700 | 40,400 | 4,900 | 2,500 | 600 | 200 | 44,900 | 3,800 |
| Other reason..... | 29,200 | 5,100 | 24,100 | 24,800 | 2,000 | 1,500 | 800 | 100 | 27,600 | 1,600 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-6. Part-time employed scientists and engineers, by reason for part-time status, sex, race/ethnicity, and disability status: 1995

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| Reason for part-time | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|--|---------|---------|---------|----------------|--------|-------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without Disability | Persons with Disability |
| Total..... | 243,000 | 117,100 | 125,800 | 209,000 | 19,000 | 8,200 | 6,200 | 600 | 227,700 | 15,300 |
| Family responsibilities..... | 58,300 | 49,600 | 8,700 | 53,400 | 2,600 | 1,000 | 1,200 | 100 | 56,900 | 1,400 |
| Chronic illness or permanent disability... | 4,800 | 2,600 | 2,200 | 4,100 | 200 | - | 500 | - | 3,000 | 1,800 |
| Did not need or want to work full-time.... | 93,800 | 53,700 | 40,100 | 85,500 | 4,700 | 1,900 | 1,400 | 200 | 88,000 | 5,800 |
| Suitable full-time job not available..... | 38,900 | 14,600 | 24,200 | 32,200 | 4,100 | 1,300 | 1,100 | 100 | 36,100 | 2,800 |
| Other reason..... | 31,400 | 13,500 | 17,900 | 26,400 | 2,200 | 1,800 | 900 | 100 | 29,400 | 2,100 |
| Retired..... | 43,900 | 4,800 | 39,100 | 41,800 | 700 | 700 | 600 | 100 | 37,500 | 6,400 |
| Student..... | 79,800 | 30,800 | 49,000 | 59,900 | 12,400 | 4,400 | 2,900 | 100 | 78,000 | 1,800 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding and because respondents could select more than one reason, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-7. Employed scientists and engineers, by occupation, employment sector, sex, race/ethnicity, and disability status: 1995

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| Occupation and employment sector | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|------------------------------------|-----------|---------|-----------|----------------|---------|---------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Science and engineering total | | | | | | | | | | |
| Total..... | 3,185,500 | 713,400 | 2,472,100 | 2,673,700 | 304,600 | 107,500 | 90,100 | 8,000 | 3,031,200 | 154,400 |
| College/university..... | 291,100 | 80,400 | 210,700 | 234,100 | 37,800 | 9,000 | 9,300 | 900 | 280,000 | 11,100 |
| Other educational institution..... | 275,200 | 108,200 | 167,000 | 228,900 | 21,500 | 15,400 | 8,800 | 500 | 256,500 | 18,700 |
| Business/industry, for profit..... | 1,970,300 | 355,900 | 1,614,400 | 1,663,000 | 195,900 | 54,800 | 51,700 | 4,300 | 1,884,600 | 85,700 |
| Self-employed..... | 113,800 | 36,300 | 77,500 | 106,100 | 4,300 | 1,200 | 1,800 | 300 | 106,600 | 7,200 |
| Private not-for-profit..... | 91,000 | 38,100 | 52,900 | 76,800 | 7,100 | 3,600 | 3,000 | 500 | 85,300 | 5,800 |
| Federal government..... | 252,400 | 47,500 | 204,900 | 210,800 | 17,900 | 13,700 | 8,800 | 1,100 | 238,900 | 13,500 |
| State or local government..... | 191,700 | 47,000 | 144,700 | 154,000 | 20,100 | 9,800 | 6,700 | 400 | 179,300 | 12,400 |
| Computer and mathematical sciences | | | | | | | | | | |
| Total..... | 949,600 | 274,900 | 674,500 | 784,900 | 100,300 | 39,300 | 22,900 | 1,600 | 903,200 | 46,100 |
| College/university..... | 41,000 | 8,900 | 32,000 | 30,500 | 7,400 | 1,700 | 1,200 | 100 | 39,500 | 1,400 |
| Other educational institution..... | 83,000 | 36,200 | 46,800 | 71,400 | 4,700 | 4,400 | 2,100 | 200 | 76,900 | 6,100 |
| Business/industry, for profit..... | 683,200 | 187,600 | 495,500 | 565,200 | 77,200 | 24,200 | 15,600 | 1,000 | 653,000 | 30,200 |
| Self-employed..... | 23,600 | 6,200 | 17,500 | 21,900 | 1,300 | 100 | 400 | - | 22,200 | 1,400 |
| Private not-for-profit..... | 27,600 | 10,700 | 16,900 | 22,300 | 3,100 | 1,000 | 1,100 | 100 | 26,400 | 1,200 |
| Federal government..... | 53,300 | 11,700 | 41,500 | 43,800 | 3,300 | 4,700 | 1,400 | 100 | 49,600 | 3,600 |
| State or local government..... | 37,900 | 13,600 | 24,300 | 29,800 | 3,300 | 3,200 | 1,100 | 100 | 35,600 | 2,200 |
| Life and related sciences | | | | | | | | | | |
| Total..... | 305,300 | 106,000 | 199,300 | 257,200 | 29,100 | 9,800 | 8,400 | 600 | 293,100 | 12,200 |
| College/university..... | 84,300 | 28,700 | 55,600 | 69,800 | 9,500 | 2,200 | 2,600 | 100 | 81,100 | 3,300 |
| Other educational institution..... | 64,700 | 26,700 | 38,000 | 51,700 | 7,400 | 3,400 | 2,200 | 100 | 61,700 | 3,000 |
| Business/industry, for profit..... | 75,600 | 27,200 | 48,400 | 63,900 | 7,700 | 2,100 | 1,900 | 100 | 72,900 | 2,700 |
| Self-employed..... | 7,400 | 2,100 | 5,300 | 7,100 | 200 | - | - | - | 7,200 | 200 |
| Private not-for-profit..... | 11,000 | 5,600 | 5,400 | 9,000 | 1,300 | 400 | 300 | - | 10,800 | 100 |
| Federal government..... | 37,700 | 10,000 | 27,700 | 33,900 | 1,800 | 1,200 | 600 | 200 | 36,100 | 1,600 |
| State or local government..... | 24,600 | 5,700 | 18,900 | 21,800 | 1,200 | 500 | 800 | 100 | 23,300 | 1,300 |
| Physical and related sciences | | | | | | | | | | |
| Total..... | 274,300 | 59,100 | 215,300 | 232,700 | 26,300 | 7,700 | 6,800 | 700 | 260,100 | 14,200 |
| College/university..... | 51,100 | 9,300 | 41,800 | 42,400 | 6,000 | 1,200 | 1,400 | 100 | 49,600 | 1,600 |
| Other educational institution..... | 28,500 | 6,300 | 22,200 | 24,300 | 3,000 | 500 | 700 | - | 24,800 | 3,700 |
| Business/industry, for profit..... | 138,600 | 31,800 | 106,800 | 117,100 | 13,100 | 4,400 | 3,500 | 600 | 132,400 | 6,200 |
| Self-employed..... | 6,500 | 300 | 6,200 | 6,000 | 400 | - | - | - | 5,900 | 500 |
| Private not-for-profit..... | 5,600 | 1,100 | 4,500 | 4,700 | 700 | - | 200 | - | 5,500 | 100 |
| Federal government..... | 27,600 | 6,500 | 21,200 | 24,400 | 1,500 | 800 | 800 | - | 27,000 | 700 |
| State or local government..... | 16,400 | 3,800 | 12,600 | 13,800 | 1,600 | 800 | 200 | - | 14,900 | 1,400 |

See explanatory information and SOURCES at end of table.

Appendix table 5-7. Employed scientists and engineers, by occupation, employment sector, sex, race/ethnicity, and disability status: 1995

Page 2 of 2

| Occupation and employment sector | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|------------------------------------|-----------|---------|-----------|----------------|---------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Social and related sciences | | | | | | | | | | |
| Total..... | 317,500 | 158,600 | 158,900 | 277,900 | 11,600 | 16,600 | 9,800 | 1,500 | 298,600 | 18,900 |
| College/university..... | 71,900 | 29,100 | 42,700 | 61,700 | 4,300 | 2,900 | 2,500 | 400 | 68,200 | 3,700 |
| Other educational institution..... | 67,600 | 37,100 | 30,500 | 56,500 | 2,500 | 5,900 | 2,500 | 200 | 64,000 | 3,600 |
| Business/industry, for profit..... | 57,600 | 28,500 | 29,100 | 51,500 | 2,200 | 2,100 | 1,700 | 100 | 55,100 | 2,500 |
| Self-employed..... | 42,600 | 26,000 | 16,500 | 40,700 | 100 | 1,000 | 500 | 200 | 39,700 | 2,800 |
| Private not-for-profit..... | 33,700 | 19,800 | 13,900 | 29,400 | 800 | 2,200 | 1,000 | 300 | 29,900 | 3,800 |
| Federal government..... | 17,100 | 5,500 | 11,700 | 15,300 | 500 | 700 | 400 | 200 | 16,600 | 500 |
| State or local government..... | 27,000 | 12,600 | 14,500 | 22,800 | 1,200 | 1,800 | 1,200 | 100 | 25,100 | 2,000 |
| Engineering | | | | | | | | | | |
| Total..... | 1,338,900 | 115,000 | 1,223,900 | 1,120,900 | 137,400 | 34,300 | 42,100 | 3,400 | 1,276,100 | 62,800 |
| College/university..... | 42,800 | 4,400 | 38,500 | 29,600 | 10,600 | 1,000 | 1,500 | 100 | 41,600 | 1,200 |
| Other educational institution..... | 31,400 | 1,900 | 29,500 | 25,100 | 3,900 | 1,200 | 1,200 | - | 29,000 | 2,400 |
| Business/industry, for profit..... | 1,015,200 | 80,700 | 934,500 | 865,400 | 95,800 | 22,100 | 29,000 | 2,400 | 971,200 | 44,000 |
| Self-employed..... | 33,800 | 1,800 | 32,000 | 30,300 | 2,400 | 100 | 900 | 100 | 31,600 | 2,200 |
| Private not-for-profit..... | 13,200 | 900 | 12,200 | 11,400 | 1,200 | 100 | 400 | 100 | 12,700 | 500 |
| Federal government..... | 116,600 | 13,900 | 102,700 | 93,300 | 10,700 | 6,300 | 5,600 | 600 | 109,600 | 7,000 |
| State or local government..... | 85,900 | 11,400 | 74,500 | 65,800 | 12,800 | 3,500 | 3,500 | 100 | 80,400 | 5,500 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree

SOURCE: National Sciences Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-8. Scientists and engineers employed in academic institutions, by institutional type, highest degree, sex, race/ethnicity, and disability status: 1995

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| Highest degree and type of institution | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|---|---------|---------|---------|----------------|--------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| All degrees..... | 566,300 | 188,600 | 377,600 | 462,800 | 59,200 | 24,500 | 18,000 | 1,600 | 536,500 | 30,000 |
| Primary school..... | 20,300 | 14,400 | 5,900 | 16,200 | 700 | 2,200 | 1,100 | 100 | 19,500 | 800 |
| Secondary school..... | 13,200 | 5,600 | 7,500 | 11,100 | 500 | 1,200 | 300 | - | 12,300 | 900 |
| 2-year college..... | 57,500 | 22,700 | 34,800 | 51,000 | 2,000 | 2,600 | 1,800 | 200 | 52,200 | 5,400 |
| 4-year college or university..... | 218,000 | 55,600 | 162,400 | 176,900 | 27,200 | 6,500 | 6,700 | 700 | 209,900 | 8,100 |
| Medical school..... | 40,000 | 16,500 | 23,500 | 32,000 | 5,200 | 1,600 | 1,100 | 100 | 38,200 | 1,800 |
| Research institute..... | 33,100 | 8,300 | 24,800 | 25,100 | 5,400 | 1,000 | 1,400 | 200 | 31,800 | 1,300 |
| Other..... | 21,500 | 9,900 | 11,600 | 18,900 | 1,300 | 700 | 600 | - | 20,000 | 1,500 |
| Combined 4-year, medical school, or research institute..... | 162,700 | 55,600 | 107,100 | 131,600 | 16,900 | 8,700 | 5,000 | 300 | 152,600 | 10,200 |
| Bachelors..... | 149,300 | 57,900 | 91,400 | 122,400 | 11,800 | 8,900 | 6,000 | 200 | 144,200 | 5,100 |
| Primary school..... | 3,000 | 1,700 | 1,300 | 1,500 | 200 | 900 | 300 | - | 2,900 | 100 |
| Secondary school..... | 4,700 | 1,900 | 2,800 | 3,500 | 500 | 500 | 100 | - | 4,700 | - |
| 2-year college..... | 13,100 | 4,100 | 9,000 | 12,000 | 400 | 600 | - | - | 12,300 | 700 |
| 4-year college or university..... | 47,600 | 17,700 | 29,900 | 38,700 | 4,600 | 2,000 | 2,100 | 100 | 47,200 | 400 |
| Medical school..... | 8,500 | 5,100 | 3,400 | 6,900 | 600 | 800 | 200 | - | 8,000 | 600 |
| Research institute..... | 7,300 | 2,900 | 4,400 | 5,600 | 800 | 500 | 400 | - | 7,200 | 100 |
| Other..... | 9,000 | 5,100 | 3,900 | 7,900 | 500 | 400 | 300 | - | 8,000 | 1,000 |
| Combined 4-year, medical school, or research institute..... | 56,200 | 19,600 | 36,600 | 46,300 | 4,200 | 3,200 | 2,500 | 100 | 54,000 | 2,200 |
| Masters..... | 174,700 | 73,900 | 100,700 | 142,300 | 18,600 | 8,200 | 5,100 | 400 | 162,800 | 11,800 |
| Primary school..... | 15,200 | 11,400 | 3,800 | 12,800 | 500 | 1,100 | 700 | 100 | 14,500 | 600 |
| Secondary school..... | 7,300 | 3,100 | 4,200 | 6,600 | - | 500 | 200 | - | 6,600 | 700 |
| 2-year college..... | 35,300 | 15,700 | 19,600 | 30,900 | 1,000 | 1,600 | 1,600 | 200 | 31,000 | 4,300 |
| 4-year college or university..... | 36,200 | 11,300 | 24,900 | 25,600 | 8,100 | 1,200 | 1,200 | 100 | 35,600 | 600 |
| Medical school..... | 3,400 | 1,900 | 1,500 | 2,000 | 1,000 | 200 | 100 | - | 3,300 | 100 |
| Research institute..... | 6,300 | 1,700 | 4,500 | 4,300 | 1,400 | 200 | 200 | - | 6,000 | 300 |
| Other..... | 8,400 | 3,500 | 4,900 | 7,500 | 400 | 300 | 200 | - | 8,000 | 400 |
| Combined 4-year, medical school, or research institute..... | 62,700 | 25,300 | 37,400 | 52,500 | 6,100 | 3,000 | 900 | - | 57,800 | 4,800 |
| Doctorate..... | 226,600 | 53,500 | 173,100 | 185,400 | 27,800 | 6,200 | 6,300 | 800 | 183,700 | 7,900 |
| Primary school..... | 1,600 | 1,100 | 500 | 1,400 | - | 200 | - | - | 1,600 | 100 |
| Secondary school..... | 1,000 | 500 | 500 | 800 | - | 100 | 100 | - | 800 | 200 |
| 2-year college..... | 8,100 | 2,500 | 5,600 | 7,000 | 500 | 400 | 200 | - | 7,700 | 400 |
| 4-year college or university..... | 134,000 | 26,500 | 107,400 | 112,500 | 14,300 | 3,200 | 3,400 | 500 | 126,800 | 7,100 |
| Medical school..... | 27,900 | 9,300 | 18,600 | 22,900 | 3,600 | 500 | 800 | 100 | 26,800 | 1,100 |
| Research institute..... | 19,400 | 3,700 | 15,700 | 15,100 | 3,100 | 300 | 800 | 100 | 18,500 | 900 |
| Other..... | 3,400 | 1,100 | 2,400 | 3,000 | 300 | - | 100 | - | 3,400 | 100 |
| Combined 4-year, medical school, or research institute..... | 31,200 | 8,800 | 22,400 | 22,800 | 5,800 | 1,500 | 1,000 | 100 | 29,000 | 2,200 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. All degrees includes "other" degree. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-9. Full-time ranked doctoral science and engineering faculty at 4-year colleges and universities, by academic rank, age, sex, race/ethnicity, and disability status: 1995

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| Age and rank | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|--------------------------|---------|--------|---------|----------------|--------|-------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| All ages/All ranks..... | 135,200 | 24,900 | 110,100 | 115,000 | 12,500 | 3,200 | 3,600 | 700 | 127,600 | 7,600 |
| Professor..... | 60,400 | 6,000 | 54,300 | 53,600 | 4,400 | 800 | 1,100 | 400 | 56,000 | 4,400 |
| Associate professor..... | 40,000 | 7,900 | 32,000 | 33,800 | 3,700 | 1,200 | 1,100 | 200 | 37,700 | 2,300 |
| Assistant professor..... | 34,800 | 11,000 | 23,800 | 27,600 | 4,400 | 1,200 | 1,400 | 100 | 33,900 | 900 |
| Younger than age 35..... | 9,900 | 2,800 | 7,000 | 7,600 | 1,600 | 200 | 400 | - | 9,700 | 200 |
| Professor..... | 100 | - | - | - | - | - | - | - | 100 | - |
| Associate professor..... | 800 | 100 | 700 | 600 | 200 | - | - | - | 800 | - |
| Assistant professor..... | 9,000 | 2,700 | 6,300 | 7,000 | 1,400 | 200 | 400 | - | 8,800 | 200 |
| Age 35 to 44..... | 44,600 | 10,500 | 34,000 | 36,700 | 5,100 | 1,100 | 1,500 | 200 | 43,300 | 1,200 |
| Professor..... | 5,800 | 700 | 5,000 | 4,900 | 700 | 100 | 100 | - | 5,600 | 200 |
| Associate professor..... | 18,400 | 3,600 | 14,800 | 15,400 | 1,900 | 300 | 600 | 100 | 17,700 | 600 |
| Assistant professor..... | 20,400 | 6,200 | 14,200 | 16,400 | 2,500 | 700 | 800 | 100 | 20,000 | 400 |
| Age 45 to 54..... | 46,100 | 8,100 | 37,900 | 40,600 | 3,100 | 1,200 | 1,000 | 200 | 43,300 | 2,800 |
| Professor..... | 26,500 | 3,200 | 23,200 | 23,800 | 1,700 | 300 | 500 | 200 | 24,900 | 1,600 |
| Associate professor..... | 15,000 | 3,100 | 11,900 | 13,100 | 1,000 | 600 | 300 | - | 14,000 | 1,000 |
| Assistant professor..... | 4,600 | 1,800 | 2,800 | 3,700 | 400 | 300 | 200 | - | 4,400 | 200 |
| Age 55 or older..... | 34,700 | 3,500 | 31,100 | 30,300 | 2,700 | 800 | 500 | 300 | 31,300 | 3,300 |
| Professor..... | 28,100 | 2,000 | 26,000 | 24,900 | 2,000 | 500 | 400 | 200 | 25,500 | 2,600 |
| Associate professor..... | 5,800 | 1,200 | 4,600 | 4,800 | 500 | 300 | 100 | 100 | 5,100 | 600 |
| Assistant professor..... | 800 | 300 | 500 | 600 | 200 | - | - | - | 700 | 100 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 5-10. Full-time doctoral scientists and engineers employed at 4-year colleges and universities,
by tenure status, age, sex, race/ethnicity, and disability status: 1995**

Page 1 of 1

| Age and tenure | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|---------------------------------------|---------|--------|---------|----------------|--------|-------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| All ages..... | 170,400 | 35,700 | 134,700 | 141,500 | 19,700 | 3,800 | 4,600 | 600 | 161,800 | 8,600 |
| No tenure system at institution..... | 5,800 | 1,100 | 4,700 | 4,400 | 1,000 | 100 | 200 | - | 5,500 | 200 |
| No tenure system for my position..... | 26,600 | 8,000 | 18,600 | 20,400 | 5,000 | 500 | 700 | - | 25,900 | 800 |
| Tenured..... | 91,800 | 12,500 | 79,300 | 80,600 | 6,900 | 1,800 | 1,900 | 500 | 85,700 | 6,100 |
| On tenure track, not tenured..... | 30,700 | 8,900 | 21,800 | 24,100 | 3,900 | 1,200 | 1,400 | 100 | 29,800 | 900 |
| Not on tenure track..... | 15,500 | 5,200 | 10,300 | 12,000 | 2,900 | 200 | 400 | - | 14,900 | 600 |
| Younger than age 35..... | 21,100 | 6,700 | 14,300 | 15,600 | 4,400 | 200 | 700 | - | 20,600 | 400 |
| No tenure system at institution..... | 800 | 200 | 500 | 600 | 200 | - | - | - | 800 | - |
| No tenure system for my position..... | 8,300 | 2,900 | 5,400 | 6,000 | 2,000 | 100 | 200 | - | 8,100 | 100 |
| Tenured..... | 600 | 100 | 500 | 400 | 200 | - | - | - | 600 | - |
| On tenure track, not tenured..... | 7,600 | 2,200 | 5,400 | 6,000 | 1,100 | 100 | 300 | - | 7,400 | 200 |
| Not on tenure track..... | 3,800 | 1,300 | 2,500 | 2,600 | 900 | - | 200 | - | 3,700 | 100 |
| Age 35 to 44..... | 59,100 | 15,000 | 44,300 | 46,900 | 8,400 | 1,400 | 2,100 | 200 | 57,500 | 1,500 |
| No tenure system at institution..... | 2,300 | 500 | 1,800 | 1,800 | 400 | - | 100 | - | 2,300 | - |
| No tenure system for my position..... | 11,400 | 3,500 | 7,900 | 8,200 | 2,500 | 300 | 400 | - | 11,100 | 300 |
| Tenured..... | 20,500 | 3,800 | 16,800 | 17,400 | 2,100 | 300 | 600 | 100 | 19,900 | 600 |
| On tenure track, not tenured..... | 18,300 | 5,000 | 13,300 | 14,400 | 2,200 | 700 | 800 | 100 | 17,800 | 400 |
| Not on tenure track..... | 6,600 | 2,200 | 4,500 | 5,100 | 1,200 | 100 | 200 | - | 6,400 | 200 |
| Age 45 to 54..... | 52,700 | 10,000 | 42,700 | 45,900 | 3,900 | 1,400 | 1,200 | 200 | 49,400 | 3,300 |
| No tenure system at institution..... | 2,000 | 300 | 1,700 | 1,500 | 300 | 100 | 100 | - | 1,900 | 100 |
| No tenure system for my position..... | 4,500 | 1,300 | 3,200 | 3,900 | 400 | 100 | 100 | - | 4,200 | 300 |
| Tenured..... | 38,200 | 5,700 | 32,500 | 34,200 | 2,200 | 800 | 800 | 200 | 35,900 | 2,300 |
| On tenure track, not tenured..... | 4,300 | 1,500 | 2,800 | 3,300 | 400 | 300 | 200 | - | 4,000 | 300 |
| Not on tenure track..... | 3,700 | 1,200 | 2,500 | 3,000 | 600 | 100 | - | - | 3,400 | 300 |
| Age 55 or older..... | 37,600 | 4,000 | 33,600 | 33,100 | 3,000 | 800 | 500 | 200 | 34,000 | 3,500 |
| No tenure system at institution..... | 700 | 100 | 600 | 600 | 100 | - | - | - | 600 | 100 |
| No tenure system for my position..... | 2,500 | 300 | 2,200 | 2,300 | 200 | - | - | - | 2,400 | 100 |
| Tenured..... | 32,400 | 2,900 | 29,500 | 28,600 | 2,400 | 700 | 500 | 200 | 29,200 | 3,200 |
| On tenure track, not tenured..... | 600 | 200 | 400 | 400 | 100 | 100 | - | - | 500 | - |
| Not on tenure track..... | 1,400 | 500 | 900 | 1,200 | 200 | - | - | - | 1,300 | 100 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.
Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-11. Full-time doctoral scientists and engineers employed in 4-year colleges or universities, by number of refereed publications and patents since 1990, sex, race, and disability status: 1995

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| Sex, race/ethnicity, and disability status | Total | Publications since 1990 | | | | | | Patents since 1990 ¹ | |
|--|---------|-------------------------|--------|--------|---------|----------|--------------|---------------------------------|--------|
| | | None | 1 or 2 | 3 to 5 | 6 to 10 | 11 to 20 | More than 20 | No | Yes |
| Total..... | 159,300 | 27,900 | 26,100 | 32,000 | 33,400 | 25,600 | 14,200 | 103,600 | 12,200 |
| Sex | | | | | | | | | |
| Women..... | 30,600 | 5,200 | 6,400 | 7,500 | 6,300 | 4,000 | 1,200 | 16,600 | 1,200 |
| Men..... | 128,700 | 22,700 | 19,700 | 24,600 | 27,100 | 21,600 | 13,000 | 86,900 | 11,000 |
| Race/Ethnicity | | | | | | | | | |
| Hispanic..... | 4,100 | 600 | 800 | 900 | 1,000 | 600 | 300 | 2,700 | 300 |
| White..... | 134,400 | 24,300 | 21,400 | 27,100 | 28,100 | 21,400 | 12,100 | 86,700 | 9,600 |
| Black..... | 3,600 | 1,000 | 900 | 900 | 500 | 300 | 100 | 2,100 | 200 |
| Asian..... | 16,400 | 2,000 | 2,900 | 2,900 | 3,800 | 3,200 | 1,700 | 11,900 | 2,000 |
| American Indian..... | 600 | 100 | 200 | 200 | 100 | 100 | - | 300 | - |
| Disability status | | | | | | | | | |
| Persons without disability..... | 150,300 | 25,800 | 24,700 | 30,400 | 31,700 | 24,300 | 13,400 | 98,100 | 11,600 |
| Persons with disability..... | 8,900 | 2,000 | 1,500 | 1,700 | 1,700 | 1,300 | 800 | 5,500 | 600 |

¹Patents columns include only natural scientists and engineers.

KEY: - = Fewer than 50 estimated.

NOTES: Includes only those who received doctorates in 1990 or earlier. Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-12. Full-time doctoral scientists and engineers employed in 4-year colleges or universities, by support from federal grants or contracts, sex, race/ethnicity, and disability status: 1995

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| Support from federal grants or contracts | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|--|---------|--------|---------|----------------|--------|-------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Total..... | 202,800 | 44,900 | 157,900 | 165,500 | 25,600 | 5,200 | 5,700 | 800 | 192,100 | 10,700 |
| No..... | 112,000 | 25,400 | 86,700 | 92,100 | 13,000 | 3,400 | 2,900 | 600 | 105,400 | 6,700 |
| Yes..... | 90,800 | 19,600 | 71,200 | 73,400 | 12,600 | 1,800 | 2,800 | 200 | 86,700 | 4,100 |

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-13. Scientists and engineers employed in business or industry, by primary work activity, age, sex, race/ethnicity, and disability status: 1995

Page 1 of 1

| Primary work activity and age | All | Sex | | Race/ethnicity | | | | | Disability status | |
|--------------------------------|-----------|---------|-----------|----------------|---------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Total..... | 1,849,800 | 333,600 | 1,516,300 | 1,558,700 | 186,500 | 51,800 | 48,900 | 4,000 | 1,773,700 | 75,900 |
| Research and development..... | 699,100 | 92,700 | 606,400 | 587,000 | 74,700 | 16,900 | 18,600 | 1,800 | 670,900 | 28,100 |
| Teaching..... | 10,900 | 4,700 | 6,200 | 9,800 | 400 | 400 | 200 | 100 | 10,600 | 200 |
| Management/administration..... | 391,200 | 60,100 | 331,200 | 343,200 | 25,600 | 11,100 | 10,600 | 800 | 372,300 | 18,900 |
| Computer applications..... | 538,300 | 127,600 | 410,700 | 438,800 | 67,500 | 17,700 | 13,400 | 1,000 | 517,800 | 20,600 |
| Other..... | 210,300 | 48,500 | 161,800 | 179,900 | 18,300 | 5,700 | 6,100 | 300 | 202,100 | 8,100 |
| Younger than 35 | | | | | | | | | | |
| Research and development..... | 246,900 | 48,200 | 198,700 | 202,400 | 27,400 | 8,100 | 8,600 | 400 | 240,900 | 6,000 |
| Teaching..... | 2,800 | 1,400 | 1,400 | 2,400 | 100 | 200 | 100 | - | 2,800 | - |
| Management/administration..... | 115,300 | 27,200 | 88,100 | 98,500 | 8,000 | 4,400 | 3,800 | 600 | 113,400 | 1,900 |
| Computer applications..... | 200,500 | 50,900 | 149,500 | 157,000 | 29,800 | 7,600 | 5,600 | 600 | 196,600 | 3,800 |
| Other..... | 62,300 | 19,400 | 42,900 | 52,500 | 5,200 | 2,400 | 2,100 | 200 | 61,200 | 1,100 |
| 35 to 44 | | | | | | | | | | |
| Research and development..... | 251,000 | 30,700 | 220,300 | 212,400 | 25,500 | 5,400 | 6,500 | 1,000 | 242,000 | 9,100 |
| Teaching..... | 4,400 | 1,900 | 2,400 | 4,000 | 100 | 100 | 100 | 100 | 4,300 | 100 |
| Management/administration..... | 136,700 | 23,100 | 113,600 | 120,100 | 8,500 | 4,300 | 3,800 | 100 | 133,000 | 3,700 |
| Computer applications..... | 211,200 | 51,200 | 160,000 | 174,700 | 24,000 | 6,400 | 6,000 | 200 | 204,500 | 6,600 |
| Other..... | 70,700 | 15,500 | 55,200 | 60,000 | 5,600 | 2,100 | 2,800 | 100 | 68,600 | 2,100 |
| 45 to 54 | | | | | | | | | | |
| Research and development..... | 131,500 | 11,100 | 120,400 | 110,900 | 15,500 | 2,600 | 2,500 | 100 | 125,000 | 6,600 |
| Teaching..... | 2,700 | 1,300 | 1,400 | 2,500 | 200 | - | - | - | 2,500 | 200 |
| Management/administration..... | 95,800 | 8,200 | 87,600 | 84,600 | 6,700 | 2,200 | 2,300 | 100 | 85,700 | 10,100 |
| Computer applications..... | 98,100 | 21,400 | 76,800 | 81,900 | 11,200 | 3,300 | 1,400 | 200 | 89,800 | 8,300 |
| Other..... | 50,500 | 10,600 | 39,800 | 43,800 | 4,800 | 1,100 | 600 | - | 48,700 | 1,800 |
| 55 or older | | | | | | | | | | |
| Research and development..... | 69,600 | 2,700 | 66,900 | 61,300 | 6,300 | 700 | 1,100 | 200 | 63,100 | 6,500 |
| Teaching..... | 1,000 | - | 1,000 | 900 | - | 100 | - | - | 1,000 | - |
| Management/administration..... | 43,400 | 1,600 | 41,900 | 40,100 | 2,300 | 200 | 800 | 100 | 40,300 | 3,200 |
| Computer applications..... | 28,600 | 4,200 | 24,400 | 25,300 | 2,500 | 400 | 300 | 100 | 26,800 | 1,800 |
| Other..... | 26,900 | 3,000 | 23,900 | 23,600 | 2,600 | 100 | 500 | 100 | 23,700 | 3,100 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-14. Mean number of direct and indirect subordinates for supervisory¹ scientists and engineers employed in business or industry, by age, sex, race/ethnicity, and disability status: 1995

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| Sex, race/ethnicity, and disability status | Age | | | | |
|--|-------|-----------------|-------|-------|-------------|
| | Total | Younger than 35 | 35-44 | 45-54 | 55 or older |
| Total..... | 11.0 | 8.3 | 10.5 | 15.3 | 10.4 |
| Sex | | | | | |
| Women..... | 7.7 | 7.1 | 8.9 | 7.0 | 4.5 |
| Men..... | 11.5 | 8.5 | 10.8 | 16.5 | 10.6 |
| Race/ethnicity | | | | | |
| Hispanic..... | 10.6 | 8.3 | 10.4 | 13.9 | 14.9 |
| White..... | 11.3 | 8.4 | 10.8 | 16.0 | 10.3 |
| Black..... | 11.4 | 10.7 | 12.7 | 10.4 | 12.1 |
| Asian..... | 7.5 | 6.2 | 6.4 | 10.1 | 9.2 |
| American Indian..... | 9.1 | 8.2 | 5.6 | 7.2 | 21.5 |
| Disability status | | | | | |
| Persons without disability..... | 10.9 | 8.3 | 10.4 | 15.3 | 10.4 |
| Persons with disability..... | 12.3 | 4.4 | 13.0 | 15.6 | 10.1 |

¹ It should be noted that in the SESTAT data files, only first-line supervisors are considered scientists and engineers. Mid-level and top managers and administrators are not considered to be in science and engineering occupations. Because this analysis was limited to people employed as scientists and engineers, those mid-level and top managers and administrators were excluded.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-15. Scientists and engineers employed in business or industry, by occupation, size of employer, sex, race/ethnicity, and disability status: 1995

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| Size of employer | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|--|-----------|---------|-----------|----------------|---------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Total science and engineering..... | 1,849,800 | 333,500 | 1,516,200 | 1,558,700 | 186,300 | 51,800 | 48,900 | 3,900 | 1,773,800 | 75,900 |
| Fewer than 10 employees.... | 70,200 | 12,400 | 57,900 | 60,400 | 6,600 | 500 | 2,400 | 300 | 66,800 | 3,400 |
| 10-24..... | 74,800 | 12,600 | 62,200 | 62,500 | 9,100 | 1,100 | 1,800 | 300 | 71,200 | 3,600 |
| 25-99..... | 163,400 | 25,800 | 137,500 | 136,100 | 20,000 | 2,800 | 3,900 | 600 | 157,200 | 6,100 |
| 100-499..... | 256,000 | 44,800 | 211,200 | 215,200 | 28,400 | 5,400 | 6,600 | 300 | 246,700 | 9,400 |
| 500-999..... | 120,100 | 24,400 | 95,700 | 101,400 | 11,900 | 3,400 | 3,300 | 100 | 115,700 | 4,400 |
| 1,000-4,999..... | 337,600 | 66,600 | 270,900 | 286,900 | 30,800 | 9,800 | 9,800 | 200 | 323,700 | 13,800 |
| 5,000 or more..... | 827,700 | 146,900 | 680,800 | 696,200 | 79,500 | 28,800 | 21,100 | 2,100 | 792,500 | 35,200 |
| Computer and mathematics sciences..... | 644,300 | 178,000 | 466,200 | 532,200 | 73,600 | 23,000 | 14,800 | 800 | 617,000 | 27,300 |
| Fewer than 10 employees.... | 20,400 | 4,000 | 16,400 | 17,500 | 2,100 | 200 | 600 | 100 | 19,900 | 500 |
| 10-24..... | 19,200 | 4,000 | 15,200 | 15,300 | 3,200 | 300 | 200 | 200 | 18,200 | 1,000 |
| 25-99..... | 48,000 | 11,700 | 36,300 | 38,900 | 7,500 | 1,100 | 600 | - | 46,000 | 2,000 |
| 100-499..... | 83,700 | 22,900 | 60,800 | 69,500 | 9,300 | 2,700 | 2,200 | - | 80,700 | 3,000 |
| 500-999..... | 41,100 | 12,200 | 28,800 | 33,900 | 4,800 | 1,300 | 1,100 | - | 39,400 | 1,700 |
| 1,000-4,999..... | 125,900 | 39,200 | 86,700 | 104,700 | 13,400 | 4,800 | 2,900 | - | 120,000 | 5,900 |
| 5,000 or more..... | 306,000 | 84,000 | 222,000 | 252,400 | 33,300 | 12,600 | 7,200 | 500 | 292,800 | 13,200 |
| Life and related sciences..... | 71,200 | 25,500 | 45,800 | 59,900 | 7,400 | 2,000 | 1,800 | - | 68,400 | 2,500 |
| Fewer than 10 employees.... | 5,100 | 1,000 | 4,100 | 4,700 | 200 | - | 100 | - | 5,000 | - |
| 10-24..... | 5,200 | 2,500 | 2,700 | 4,300 | 800 | - | 100 | - | 4,800 | 400 |
| 25-99..... | 8,400 | 2,400 | 6,100 | 7,600 | 600 | 300 | - | - | 8,400 | 100 |
| 100-499..... | 10,000 | 3,400 | 6,500 | 7,900 | 1,800 | - | 200 | - | 9,200 | 700 |
| 500-999..... | 5,000 | 2,600 | 2,500 | 4,300 | 400 | - | 400 | - | 5,000 | - |
| 1,000-4,999..... | 12,300 | 4,500 | 7,800 | 10,300 | 1,200 | 600 | 200 | - | 11,300 | 900 |
| 5,000 or more..... | 25,200 | 9,100 | 16,100 | 20,800 | 2,400 | 1,100 | 800 | - | 24,700 | 400 |
| Physical and related sciences..... | 131,500 | 30,500 | 101,100 | 110,800 | 12,700 | 4,000 | 3,200 | 600 | 126,000 | 5,600 |
| Fewer than 10 employees.... | 5,000 | 900 | 4,100 | 4,400 | 200 | - | 300 | - | 4,900 | 100 |
| 10-24..... | 8,000 | 1,500 | 6,500 | 7,100 | 400 | 100 | 300 | - | 7,600 | 400 |
| 25-99..... | 14,900 | 3,500 | 11,400 | 12,300 | 1,900 | 100 | 500 | 200 | 14,100 | 800 |
| 100-499..... | 17,800 | 4,400 | 13,400 | 14,300 | 2,700 | 500 | 300 | - | 17,300 | 500 |
| 500-999..... | 10,000 | 2,000 | 8,100 | 8,600 | 400 | 600 | 400 | 100 | 9,200 | 900 |
| 1,000-4,999..... | 27,500 | 6,200 | 21,300 | 23,900 | 2,000 | 700 | 800 | - | 26,200 | 1,300 |
| 5,000 or more..... | 48,300 | 12,000 | 36,300 | 40,200 | 5,100 | 2,000 | 600 | 300 | 46,700 | 1,600 |
| Social and related sciences..... | 43,400 | 21,900 | 21,400 | 38,900 | 1,300 | 1,700 | 1,400 | - | 41,600 | 1,700 |
| Fewer than 10 employees.... | 8,600 | 4,400 | 4,200 | 7,700 | 100 | 200 | 500 | - | 8,100 | 400 |
| 10-24..... | 4,300 | 2,400 | 1,900 | 4,100 | - | 200 | - | - | 4,300 | - |
| 25-99..... | 6,600 | 3,200 | 3,400 | 6,300 | - | 200 | 100 | - | 6,200 | 500 |
| 100-499..... | 9,000 | 5,200 | 3,800 | 8,100 | 300 | 500 | 100 | - | 8,900 | 100 |
| 500-999..... | 2,600 | 1,300 | 1,300 | 2,400 | - | 100 | - | - | 2,000 | 600 |
| 1,000-4,999..... | 3,600 | 2,500 | 1,100 | 3,200 | 100 | 100 | 300 | - | 3,600 | - |
| 5,000 or more..... | 8,700 | 2,900 | 5,700 | 7,100 | 800 | 400 | 400 | - | 8,500 | 100 |

See explanatory information and SOURCES at end of table.

Appendix table 5-15. Scientists and engineers employed in business or industry, by occupation, size of employer, sex, race/ethnicity, and disability status: 1995

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| Size of employer | Total | Sex | | Race/ethnicity | | | | | Disability status | |
|-----------------------------|---------|--------|---------|----------------|--------|--------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Engineering..... | 959,400 | 77,600 | 881,600 | 817,200 | 91,100 | 21,000 | 27,500 | 2,300 | 920,500 | 38,500 |
| Fewer than 10 employees.... | 31,200 | 2,100 | 29,100 | 26,000 | 4,000 | 100 | 900 | 200 | 28,800 | 2,400 |
| 10-24..... | 38,100 | 2,200 | 35,800 | 31,700 | 4,700 | 400 | 1,100 | 100 | 36,300 | 1,700 |
| 25-99..... | 85,400 | 5,000 | 80,400 | 71,100 | 10,000 | 1,200 | 2,700 | 400 | 82,500 | 2,800 |
| 100-499..... | 135,500 | 8,800 | 126,700 | 115,500 | 14,200 | 1,700 | 3,800 | 200 | 130,600 | 4,900 |
| 500-999..... | 61,400 | 6,300 | 55,000 | 52,300 | 6,300 | 1,300 | 1,500 | - | 60,100 | 1,200 |
| 1,000-4,999..... | 168,300 | 14,200 | 154,000 | 144,800 | 14,100 | 3,600 | 5,500 | 200 | 162,500 | 5,700 |
| 5,000 or more..... | 439,500 | 39,000 | 400,600 | 375,800 | 37,800 | 12,700 | 12,000 | 1,200 | 419,700 | 19,800 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table: 5-16. Doctoral scientists and engineers employed full time in business or industry and who received degrees in 1990 or earlier, by occupation, number of publications, applications for a U.S. patent, sex, race/ethnicity, and disability status: 1995

Page 1 of 1

| Publications and patents | Total | Sex | | Race/ethnicity | | | | | Physical disability | |
|---|--------|-------|--------|----------------|--------|-------|----------|-----------------|----------------------------|-------------------------|
| | | Women | Men | White | Asian | Black | Hispanic | American Indian | Persons without disability | Persons with disability |
| Publications | | | | | | | | | | |
| Total, all scientists and engineers..... | 74,500 | 9,200 | 65,400 | 56,100 | 16,100 | 900 | 1,300 | 100 | 72,100 | 2,400 |
| None..... | 34,900 | 4,500 | 30,400 | 26,900 | 6,900 | 500 | 400 | 100 | 33,500 | 1,400 |
| 1 or 2..... | 16,500 | 1,700 | 14,900 | 12,000 | 3,900 | 200 | 400 | - | 16,000 | 500 |
| 3 to 5..... | 11,700 | 1,700 | 10,000 | 9,000 | 2,500 | 100 | 100 | - | 11,400 | 300 |
| 6 to 10..... | 6,400 | 700 | 5,600 | 4,600 | 1,500 | 100 | 100 | - | 6,200 | 200 |
| 11 to 20..... | 3,700 | 500 | 3,300 | 2,500 | 1,000 | - | 200 | - | 3,700 | - |
| More than 20..... | 1,300 | 100 | 1,200 | 1,100 | 200 | - | - | - | 1,300 | - |
| Patents | | | | | | | | | | |
| All natural scientists and engineers ¹ | | | | | | | | | | |
| No..... | 43,400 | 5,700 | 37,700 | 32,000 | 10,100 | 500 | 600 | - | 41,800 | 1,500 |
| Yes..... | 26,500 | 2,200 | 24,200 | 19,900 | 5,800 | 100 | 600 | - | 25,900 | 700 |
| Total..... | 69,900 | 7,900 | 61,900 | 51,900 | 15,900 | 600 | 1,200 | - | 67,700 | 2,200 |
| Computer and mathematics sciences | | | | | | | | | | |
| No..... | 9,400 | 1,700 | 7,700 | 7,200 | 1,900 | 100 | 100 | - | 9,100 | 300 |
| Yes..... | 2,100 | 100 | 2,000 | 1,700 | 400 | - | - | - | 2,100 | 100 |
| Total..... | 11,500 | 1,800 | 9,700 | 8,900 | 2,300 | 100 | 100 | - | 11,200 | 400 |
| Life and related sciences | | | | | | | | | | |
| No..... | 8,600 | 1,900 | 6,700 | 7,000 | 1,500 | - | 100 | - | 8,400 | 300 |
| Yes..... | 4,900 | 1,000 | 3,800 | 3,600 | 1,000 | - | 200 | - | 4,800 | 100 |
| Total..... | 13,500 | 2,900 | 10,500 | 10,600 | 2,500 | - | 300 | - | 13,200 | 400 |
| Physical and related sciences | | | | | | | | | | |
| No..... | 10,700 | 1,400 | 9,300 | 8,400 | 1,800 | 200 | 200 | - | 10,200 | 400 |
| Yes..... | 10,700 | 900 | 9,800 | 8,600 | 1,800 | 100 | 200 | - | 10,400 | 300 |
| Total..... | 21,400 | 2,300 | 19,100 | 17,000 | 3,600 | 300 | 400 | - | 20,600 | 700 |
| Engineering | | | | | | | | | | |
| No..... | 14,700 | 700 | 14,000 | 9,400 | 4,900 | 200 | 200 | - | 14,100 | 500 |
| Yes..... | 8,800 | 200 | 8,600 | 6,000 | 2,600 | - | 200 | - | 8,600 | 200 |
| Total..... | 23,500 | 900 | 22,600 | 15,400 | 7,500 | 200 | 400 | - | 22,700 | 700 |

¹ The prevalence of patents by social scientists was so low they were excluded from this analysis.

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-17. Median annual salaries of full-time employed scientists and engineers, by highest degree, occupation, sex, and age: 1995

Page 1 of 2

| Occupation and age | Sex | Highest degree | | | |
|------------------------------------|-------|----------------|------------|----------|-----------|
| | | All degrees | Bachelor's | Master's | Doctorate |
| Science and engineering total | | | | | |
| All ages..... | Women | \$42,000 | \$40,200 | \$43,500 | \$47,000 |
| | Men | 52,000 | 50,000 | 56,000 | 60,000 |
| 20-29..... | Women | 31,500 | 35,000 | 42,000 | - |
| | Men | 36,000 | 38,000 | 42,000 | 38,600 |
| 30-39..... | Women | 43,000 | 44,000 | 49,000 | 45,000 |
| | Men | 50,000 | 49,700 | 56,000 | 55,500 |
| 40-49..... | Women | 47,000 | 48,000 | 53,000 | 51,300 |
| | Men | 58,000 | 57,000 | 60,000 | 60,000 |
| 50 or older..... | Women | 49,000 | 49,600 | 50,000 | 58,000 |
| | Men | 61,000 | 57,000 | 60,000 | 65,000 |
| Computer and mathematical sciences | | | | | |
| 20-29..... | Women | 36,900 | 35,000 | 42,000 | - |
| | Men | 39,000 | 38,000 | 42,000 | 38,600 |
| 30-39..... | Women | 45,000 | 44,000 | 49,000 | 45,000 |
| | Men | 50,000 | 49,700 | 56,000 | 55,500 |
| 40-49..... | Women | 49,700 | 48,000 | 53,000 | 51,300 |
| | Men | 58,100 | 57,000 | 60,000 | 60,000 |
| 50 or older..... | Women | 50,000 | 49,600 | 50,000 | 58,000 |
| | Men | 60,000 | 57,000 | 60,000 | 65,000 |
| Life and related sciences | | | | | |
| 20-29..... | Women | 20,500 | 20,000 | 24,200 | 25,000 |
| | Men | 21,000 | 19,900 | 24,000 | 28,000 |
| 30-39..... | Women | 32,000 | 32,200 | 32,000 | 32,000 |
| | Men | 37,500 | 36,000 | 35,000 | 39,000 |
| 40-49..... | Women | 45,000 | 41,000 | 36,300 | 54,000 |
| | Men | 48,000 | 40,000 | 45,000 | 58,800 |
| 50 or older..... | Women | 43,400 | - | 40,900 | 56,000 |
| | Men | 60,000 | 47,000 | 47,000 | 67,200 |
| Physical and related sciences | | | | | |
| 20-29..... | Women | 28,100 | 27,500 | 34,000 | - |
| | Men | 25,000 | 25,000 | 20,000 | 34,000 |
| 30-39..... | Women | 40,000 | 38,500 | 46,000 | 45,000 |
| | Men | 42,000 | 40,000 | 41,000 | 50,000 |
| 40-49..... | Women | 45,000 | 45,000 | 41,000 | 56,000 |
| | Men | 56,400 | 50,000 | 57,800 | 64,000 |
| 50 or older..... | Women | 44,900 | - | - | 58,000 |
| | Men | 63,000 | 56,400 | 60,000 | 72,000 |

See explanatory information and SOURCES at end of table.

**Appendix table 5-17. Median annual salaries of full-time employed scientists and engineers,
by highest degree, occupation, sex, and age: 1995**

Page 2 of 2

| Occupation and age | Sex | Highest degree | | | |
|-----------------------------|-------|----------------|------------|----------|-----------|
| | | All degrees | Bachelor's | Master's | Doctorate |
| Social and related sciences | | | | | |
| 20-29..... | Women | \$22,000 | \$20,000 | \$26,000 | \$34,000 |
| | Men | 26,000 | 25,000 | 24,500 | - |
| 30-39..... | Women | 35,500 | 24,000 | 35,000 | 40,000 |
| | Men | 40,000 | - | 35,000 | 45,000 |
| 40-49..... | Women | 41,000 | - | 37,000 | 47,000 |
| | Men | 48,000 | 42,000 | 40,000 | 55,000 |
| 50 or older..... | Women | 47,400 | - | 42,500 | 52,000 |
| | Men | 59,000 | - | 53,000 | 60,000 |
| Engineering | | | | | |
| 20-29..... | Women | 39,000 | 38,000 | 42,800 | - |
| | Men | 38,400 | 38,000 | 42,000 | 50,000 |
| 30-39..... | Women | 49,800 | 48,000 | 53,300 | 57,000 |
| | Men | 51,000 | 50,000 | 55,000 | 59,400 |
| 40-49..... | Women | 52,000 | 48,600 | 60,000 | 65,000 |
| | Men | 60,000 | 58,500 | 64,000 | 70,000 |
| 50 or older..... | Women | 57,800 | 58,000 | - | 67,000 |
| | Men | 63,000 | 60,500 | 67,000 | 75,900 |

KEY: - = Fewer than 20 individuals reporting salary.

NOTES: Because of rounding, details may not add up to totals. Median salaries were not computed for groups with fewer than 20 individuals reporting salary. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-18. Scientists and engineers in the U.S. labor force, by occupation, race/ethnicity, and highest degree: 1995

Page 1 of 2

| Occupation | All degrees | | | | | | Bachelor's | | | | | |
|-------------------------------------|-------------|-----------|---------|---------|----------|-----------------|------------|-----------|---------|--------|----------|-----------------|
| | Total | White | Asian | Black | Hispanic | American Indian | Total | White | Asian | Black | Hispanic | American Indian |
| Science and engineering total..... | 3,256,200 | 2,728,300 | 315,200 | 110,200 | 92,700 | 8,100 | 1,883,300 | 1,616,500 | 132,200 | 72,400 | 56,300 | 4,800 |
| Computer/mathematical sciences..... | 966,200 | 797,700 | 102,500 | 40,100 | 23,600 | 1,700 | 635,400 | 539,300 | 47,500 | 29,200 | 17,800 | 1,100 |
| Computer/information sciences..... | 854,800 | 705,600 | 92,600 | 33,900 | 21,100 | 1,300 | 605,200 | 514,200 | 46,100 | 26,700 | 17,000 | 1,100 |
| Mathematical science..... | 38,500 | 32,000 | 2,700 | 2,500 | 800 | 100 | 16,600 | 14,200 | 200 | 1,200 | 400 | - |
| Postsecondary mathematics..... | 72,900 | 60,100 | 7,200 | 3,600 | 1,700 | 300 | 13,500 | 10,900 | 1,100 | 1,200 | 300 | - |
| Life and related sciences..... | 311,500 | 261,900 | 30,200 | 9,800 | 8,800 | 700 | 123,900 | 107,900 | 7,200 | 4,300 | 4,300 | 300 |
| Agricultural/food science..... | 44,200 | 38,200 | 2,700 | 1,500 | 1,700 | - | 24,900 | 22,000 | 700 | 1,100 | 1,000 | - |
| Biological science..... | 172,800 | 140,400 | 22,100 | 4,900 | 4,900 | 400 | 71,300 | 60,500 | 5,200 | 2,800 | 2,600 | 100 |
| Environmental science..... | 20,700 | 19,800 | 300 | 100 | 300 | 100 | 14,000 | 13,300 | 200 | 100 | 200 | 100 |
| Postsecondary life science..... | 73,800 | 63,400 | 5,100 | 3,300 | 1,900 | 100 | 13,800 | 12,000 | 1,000 | 300 | 500 | - |
| Physical and related sciences..... | 281,800 | 238,100 | 27,700 | 8,000 | 7,100 | 800 | 131,000 | 114,100 | 7,700 | 5,600 | 3,100 | 500 |
| Chemistry..... | 113,900 | 90,300 | 15,200 | 5,600 | 2,500 | 400 | 66,300 | 54,900 | 5,500 | 4,400 | 1,300 | 300 |
| Earth science..... | 73,100 | 66,300 | 3,600 | 700 | 2,200 | 300 | 37,100 | 34,100 | 1,300 | 300 | 1,100 | 200 |
| Physics..... | 30,100 | 25,600 | 3,700 | 300 | 400 | - | 7,400 | 6,800 | 200 | 200 | 200 | - |
| Other physical science..... | 17,300 | 15,300 | 1,000 | 300 | 600 | - | 9,300 | 8,600 | 100 | 200 | 400 | - |
| Postsecondary physics..... | 47,400 | 40,600 | 4,100 | 1,100 | 1,400 | 100 | 11,000 | 9,700 | 500 | 600 | 200 | - |
| Social and related sciences..... | 321,500 | 281,200 | 11,900 | 16,700 | 10,100 | 1,500 | 61,600 | 50,800 | 2,600 | 5,800 | 2,000 | 300 |
| Economics..... | 34,100 | 28,900 | 2,000 | 1,200 | 1,900 | 100 | 11,300 | 10,500 | 100 | 400 | 400 | - |
| Political science..... | 9,000 | 7,300 | 800 | 300 | 600 | - | 5,100 | 4,300 | 400 | 200 | 100 | - |
| Psychology..... | 169,000 | 151,900 | 3,200 | 8,500 | 4,600 | 900 | 25,900 | 20,500 | 1,200 | 2,900 | 1,100 | 200 |
| Sociology..... | 16,300 | 14,800 | 600 | 600 | 200 | 100 | 7,800 | 6,900 | 300 | 400 | 200 | 100 |
| Other social sciences..... | 12,700 | 10,700 | 500 | 1,100 | 300 | - | 3,800 | 2,900 | 100 | 600 | 100 | - |
| Postsecondary social science..... | 80,300 | 67,600 | 4,800 | 5,000 | 2,500 | 400 | 7,600 | 5,700 | 600 | 1,300 | 100 | - |
| Engineering..... | 1,375,200 | 1,149,300 | 143,000 | 35,700 | 43,000 | 3,400 | 931,500 | 804,400 | 67,300 | 27,500 | 29,000 | 2,500 |
| Aerospace engineering..... | 75,200 | 64,200 | 5,900 | 1,700 | 3,000 | 300 | 43,900 | 38,100 | 2,600 | 1,100 | 1,800 | 200 |
| Chemical engineering..... | 72,900 | 59,700 | 8,300 | 2,500 | 2,400 | - | 46,600 | 39,000 | 4,200 | 1,800 | 1,600 | - |
| Civil engineering..... | 203,000 | 167,300 | 24,000 | 3,600 | 7,600 | 400 | 145,700 | 124,800 | 12,400 | 2,900 | 5,300 | 300 |
| Electrical engineering..... | 369,600 | 294,900 | 48,900 | 11,900 | 13,000 | 900 | 249,800 | 205,900 | 24,900 | 9,300 | 8,800 | 800 |
| Industrial engineering..... | 71,900 | 62,000 | 3,900 | 3,400 | 2,100 | 300 | 53,900 | 46,700 | 2,000 | 3,200 | 1,700 | 200 |
| Mechanical engineering..... | 261,200 | 223,300 | 23,700 | 5,900 | 7,000 | 800 | 195,400 | 173,400 | 11,100 | 4,700 | 5,200 | 500 |
| Other engineering..... | 289,900 | 254,300 | 22,400 | 5,900 | 6,700 | 600 | 190,800 | 172,300 | 9,300 | 4,300 | 4,500 | 500 |
| Postsecondary engineering..... | 31,500 | 23,600 | 5,800 | 900 | 1,100 | 100 | 5,300 | 4,100 | 900 | 200 | 100 | - |

See explanatory information and SOURCES at end of table.

Appendix table 5-18. Scientists and engineers in the U.S. labor force, by occupation, race/ethnicity, and highest degree: 1995

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| Occupation | Master's | | | | | | Doctorate | | | | | |
|-------------------------------------|----------|---------|---------|--------|----------|-----------------|-----------|---------|--------|-------|----------|-----------------|
| | Total | White | Asian | Black | Hispanic | American Indian | Total | White | Asian | Black | Hispanic | American Indian |
| Science and engineering total..... | 915,700 | 743,200 | 119,500 | 26,200 | 24,600 | 1,800 | 425,700 | 342,300 | 61,300 | 9,800 | 10,700 | 1,500 |
| Computer/mathematical sciences..... | 273,600 | 214,100 | 45,100 | 9,300 | 4,500 | 400 | 54,600 | 42,200 | 9,600 | 1,200 | 1,400 | 200 |
| Computer/information sciences..... | 224,500 | 172,600 | 41,500 | 6,500 | 3,600 | 100 | 22,500 | 16,900 | 4,700 | 400 | 500 | 100 |
| Mathematical science..... | 14,300 | 11,900 | 1,100 | 1,100 | 100 | 100 | 7,700 | 5,900 | 1,400 | 100 | 300 | - |
| Postsecondary mathematics..... | 34,800 | 29,700 | 2,600 | 1,700 | 800 | 200 | 24,500 | 19,400 | 3,500 | 700 | 600 | 100 |
| Life and related sciences..... | 65,200 | 54,700 | 6,500 | 2,500 | 1,100 | 100 | 104,400 | 84,700 | 14,800 | 1,900 | 2,800 | 200 |
| Agricultural/food science..... | 9,600 | 8,400 | 700 | 300 | 100 | - | 9,700 | 7,700 | 1,300 | 100 | 500 | - |
| Biological science..... | 33,600 | 27,300 | 4,700 | 900 | 500 | - | 59,500 | 45,500 | 11,100 | 900 | 1,800 | 200 |
| Environmental science..... | 5,900 | 5,700 | - | - | 100 | - | 800 | 800 | - | - | - | - |
| Postsecondary life science..... | 16,300 | 13,400 | 1,100 | 1,300 | 400 | - | 34,500 | 30,600 | 2,400 | 900 | 500 | - |
| Physical and related sciences..... | 69,800 | 58,000 | 8,300 | 1,000 | 2,200 | 200 | 80,700 | 65,700 | 11,600 | 1,400 | 1,700 | 200 |
| Chemistry..... | 20,900 | 15,800 | 3,900 | 700 | 500 | 100 | 26,600 | 19,500 | 5,800 | 600 | 700 | - |
| Earth science..... | 25,400 | 22,800 | 1,400 | 200 | 900 | 100 | 10,600 | 9,300 | 900 | 200 | 100 | - |
| Physics..... | 8,100 | 6,900 | 1,200 | - | 100 | - | 14,500 | 11,900 | 2,300 | 100 | 200 | - |
| Other physical science..... | 5,200 | 4,300 | 600 | - | 200 | - | 2,700 | 2,400 | 300 | - | - | - |
| Postsecondary physics..... | 10,200 | 8,200 | 1,300 | 100 | 600 | - | 26,100 | 22,600 | 2,300 | 500 | 600 | 100 |
| Social and related sciences..... | 138,000 | 122,800 | 3,800 | 6,200 | 4,800 | 400 | 113,900 | 100,500 | 5,400 | 4,200 | 3,100 | 700 |
| Economics..... | 15,600 | 12,700 | 1,000 | 800 | 1,200 | 100 | 7,100 | 5,700 | 900 | 100 | 400 | 100 |
| Political science..... | 2,700 | 1,900 | 300 | - | 400 | - | 1,200 | 1,000 | 100 | - | 100 | - |
| Psychology..... | 89,900 | 82,500 | 1,100 | 3,700 | 2,200 | 300 | 48,400 | 44,600 | 900 | 1,400 | 1,100 | 300 |
| Sociology..... | 5,500 | 5,000 | 300 | 100 | - | - | 3,100 | 2,900 | - | 100 | - | - |
| Other social sciences..... | 4,900 | 4,400 | 200 | 200 | - | - | 3,000 | 2,500 | 200 | 200 | 200 | - |
| Postsecondary social science..... | 19,500 | 16,200 | 900 | 1,500 | 1,000 | 100 | 51,000 | 43,800 | 3,300 | 2,300 | 1,300 | 400 |
| Engineering..... | 369,200 | 293,600 | 55,700 | 7,100 | 12,000 | 700 | 72,100 | 49,300 | 19,800 | 1,100 | 1,800 | 200 |
| Aerospace engineering..... | 26,800 | 22,700 | 2,300 | 500 | 1,200 | - | 4,400 | 3,200 | 1,000 | - | 100 | - |
| Chemical engineering..... | 19,900 | 16,300 | 2,400 | 500 | 600 | - | 6,400 | 4,500 | 1,700 | 100 | 200 | - |
| Civil engineering..... | 52,700 | 39,700 | 10,100 | 700 | 2,100 | 100 | 3,900 | 2,200 | 1,500 | 100 | 100 | - |
| Electrical engineering..... | 104,700 | 79,200 | 19,200 | 2,400 | 3,800 | 100 | 13,900 | 8,800 | 4,700 | 100 | 300 | - |
| Industrial engineering..... | 17,100 | 14,700 | 1,700 | 200 | 400 | 100 | 900 | 600 | 200 | - | - | - |
| Mechanical engineering..... | 57,300 | 44,900 | 9,600 | 1,100 | 1,500 | 300 | 8,100 | 4,800 | 3,000 | 100 | 200 | - |
| Other engineering..... | 82,000 | 69,600 | 9,000 | 1,400 | 2,000 | 100 | 16,800 | 12,200 | 4,100 | 200 | 300 | - |
| Postsecondary engineering..... | 8,500 | 6,500 | 1,300 | 200 | 500 | - | 17,600 | 13,000 | 3,600 | 400 | 600 | 100 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. All degrees includes "other" degrees. Total includes "other" race/ethnicity.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

**Appendix table 5-19. Doctoral scientists and engineers in the U.S. labor force,
by race/ethnicity, occupation, and citizenship status: 1995**

Page 1 of 1

| Citizenship and occupation | All | White | Asian | Black | Hispanic | American Indian | Other |
|--|---------|---------|--------|-------|----------|-----------------|-------|
| Science and engineering total..... | 425,600 | 342,300 | 61,300 | 9,800 | 10,700 | 1,500 | 100 |
| Non-U.S. born..... | 110,000 | 45,000 | 56,800 | 2,900 | 5,200 | 100 | - |
| Computer and mathematical sciences.... | 18,100 | 7,700 | 9,200 | 400 | 800 | 100 | - |
| Life and related sciences..... | 26,400 | 10,900 | 13,400 | 600 | 1,600 | - | - |
| Physical and related sciences..... | 22,300 | 9,900 | 10,900 | 600 | 800 | - | - |
| Social and related sciences..... | 14,000 | 7,700 | 4,300 | 800 | 1,100 | - | - |
| Engineering..... | 29,300 | 8,900 | 18,900 | 600 | 900 | - | - |
| U.S. born..... | 315,600 | 297,300 | 4,500 | 6,900 | 5,500 | 1,300 | 100 |
| Computer and mathematical sciences.... | 36,500 | 34,500 | 400 | 900 | 500 | 100 | - |
| Life and related sciences..... | 78,000 | 73,800 | 1,400 | 1,300 | 1,200 | 200 | - |
| Physical and related sciences..... | 58,400 | 55,900 | 700 | 800 | 900 | 100 | - |
| Social and related sciences..... | 99,900 | 92,700 | 1,100 | 3,400 | 1,900 | 700 | - |
| Engineering..... | 42,800 | 40,400 | 900 | 500 | 900 | 100 | - |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

**Appendix table 5-20. Employment status of scientists and engineers,
by occupation and race/ethnicity: 1995**

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| Occupation and race/ethnicity | Total | Full-time employed in field | Full-time employed outside field | Part-time employed | Not employed | Not in labor force |
|---|-----------|-----------------------------------|--|-----------------------|-----------------|-----------------------|
| Science and engineering total..... | 3,708,500 | 2,656,800 | 285,800 | 243,000 | 70,600 | 452,300 |
| Hispanic..... | 102,000 | 77,600 | 6,300 | 6,200 | 2,600 | 9,300 |
| White..... | 3,138,900 | 2,218,400 | 246,200 | 209,000 | 54,600 | 410,600 |
| Black..... | 119,100 | 87,600 | 11,700 | 8,200 | 2,700 | 8,900 |
| Asian..... | 338,100 | 264,500 | 21,200 | 19,000 | 10,600 | 22,900 |
| American Indian..... | 8,600 | 7,000 | 400 | 600 | 100 | 500 |
| Other..... | 1,800 | 1,700 | - | - | - | 100 |
| Computer and mathematical sciences..... | 1,037,100 | 710,700 | 177,800 | 61,000 | 16,800 | 70,800 |
| Hispanic..... | 25,300 | 18,400 | 3,500 | 1,000 | 700 | 1,700 |
| White..... | 860,400 | 576,200 | 155,500 | 53,200 | 12,900 | 62,600 |
| Black..... | 42,000 | 30,100 | 6,900 | 2,200 | 800 | 1,900 |
| Asian..... | 107,000 | 84,000 | 11,800 | 4,500 | 2,300 | 4,500 |
| American Indian..... | 1,700 | 1,300 | 100 | 100 | 100 | 100 |
| Other..... | 700 | 700 | - | - | - | - |
| Life and related sciences..... | 364,700 | 266,100 | 9,900 | 29,300 | 6,200 | 53,100 |
| Hispanic..... | 10,600 | 7,300 | 200 | 1,100 | 300 | 1,700 |
| White..... | 306,000 | 223,800 | 8,500 | 24,800 | 4,700 | 44,100 |
| Black..... | 12,300 | 8,400 | 500 | 800 | 100 | 2,500 |
| Asian..... | 34,900 | 25,700 | 700 | 2,600 | 1,100 | 4,700 |
| American Indian..... | 700 | 700 | - | - | - | - |
| Other..... | 200 | 200 | - | - | - | 100 |
| Physical and related sciences..... | 331,000 | 239,300 | 10,300 | 24,900 | 7,500 | 49,300 |
| Hispanic..... | 8,300 | 6,100 | 500 | 300 | 300 | 1,200 |
| White..... | 282,500 | 202,900 | 8,300 | 21,500 | 5,500 | 44,400 |
| Black..... | 9,100 | 6,700 | 600 | 500 | 300 | 1,100 |
| Asian..... | 30,100 | 23,000 | 700 | 2,500 | 1,400 | 2,400 |
| American Indian..... | 1,000 | 600 | 200 | 100 | - | 200 |
| Other..... | - | - | - | - | - | - |
| Social and related sciences..... | 363,800 | 239,700 | 5,900 | 71,600 | 3,900 | 42,300 |
| Hispanic..... | 11,600 | 7,200 | 300 | 2,200 | 400 | 1,400 |
| White..... | 318,600 | 210,500 | 4,900 | 62,500 | 3,300 | 37,400 |
| Black..... | 18,200 | 12,300 | 700 | 3,500 | 100 | 1,500 |
| Asian..... | 13,700 | 8,500 | - | 3,200 | 100 | 1,800 |
| American Indian..... | 1,700 | 1,200 | - | 200 | - | 200 |
| Other..... | - | - | - | - | - | - |
| Engineering..... | 1,612,000 | 1,201,100 | 81,800 | 56,100 | 36,200 | 236,700 |
| Hispanic..... | 46,300 | 38,700 | 1,800 | 1,700 | 800 | 3,300 |
| White..... | 1,371,500 | 1,005,000 | 69,000 | 47,000 | 28,300 | 222,100 |
| Black..... | 37,500 | 30,200 | 3,000 | 1,100 | 1,400 | 1,800 |
| Asian..... | 152,400 | 123,300 | 7,900 | 6,100 | 5,700 | 9,400 |
| American Indian..... | 3,500 | 3,100 | 100 | 200 | - | 100 |
| Other..... | 800 | 800 | - | - | - | - |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-21. Median annual salaries of full-time employed scientists and engineers, by highest degree, occupation, race/ethnicity, and age: 1995

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| Occupation and race/ethnicity | All degrees | | | | | Bachelor's | | | | Master's | | | | Doctorate | | | | |
|------------------------------------|-------------|----------|----------|----------|-------------|------------|----------|----------|-------------|----------|----------|----------|-------------|-----------|----------|----------|-------------|--------|
| | All ages | 20-29 | 30-39 | 40-49 | 50 or older | 20-29 | 30-39 | 40-49 | 50 or older | 20-29 | 30-39 | 40-49 | 50 or older | 20-29 | 30-39 | 40-49 | 50 or older | |
| Science and engineering total | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | \$50,500 | \$35,000 | \$49,500 | \$56,000 | \$60,000 | \$35,000 | \$48,000 | \$55,000 | \$60,000 | \$37,500 | \$52,000 | \$57,800 | \$60,000 | \$36,000 | \$49,000 | \$60,000 | \$65,000 | |
| Asian..... | 50,000 | 38,000 | 48,000 | 56,000 | 58,400 | 35,000 | 46,000 | 51,400 | 53,000 | 42,000 | 50,000 | 59,000 | 60,000 | 34,000 | 50,000 | 60,000 | 67,700 | |
| Black, non-Hispanic..... | 45,000 | 35,000 | 45,000 | 48,000 | 50,000 | 35,000 | 45,000 | 46,000 | 49,900 | 35,000 | 45,600 | 50,000 | 46,000 | 40,000 | 46,000 | 49,000 | 58,000 | |
| Hispanic..... | 47,000 | 35,000 | 45,000 | 52,000 | 60,000 | 33,600 | 45,000 | 50,000 | 60,000 | 41,500 | 49,000 | 52,000 | 62,000 | 40,000 | 44,000 | 53,300 | 62,000 | |
| American Indian..... | 48,000 | 34,000 | 42,000 | 48,000 | 60,000 | 34,000 | 42,000 | 48,000 | 64,000 | 7,200 | 42,300 | 37,000 | 61,000 | - | 41,000 | 50,000 | 60,000 | |
| Computer and mathematical sciences | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | 38,000 | 38,000 | 48,000 | 55,000 | 56,000 | 38,000 | 48,000 | 55,000 | 56,000 | 40,200 | 55,000 | 58,300 | 58,000 | 36,000 | 55,000 | 59,800 | 63,500 | |
| Asian..... | 38,000 | 38,000 | 48,700 | 50,000 | 45,000 | 38,000 | 48,700 | 50,000 | 45,000 | 45,000 | 54,000 | 60,000 | 60,000 | - | 56,000 | 55,000 | 63,000 | |
| Black, non-Hispanic..... | 35,000 | 35,000 | 44,000 | 45,800 | - | 35,000 | 44,000 | 45,800 | - | 39,000 | 48,000 | 51,000 | - | - | 49,000 | 48,000 | 58,000 | |
| Hispanic..... | 32,000 | 32,000 | 45,000 | 50,000 | - | 32,000 | 45,000 | 50,000 | - | - | 56,000 | - | - | - | 47,800 | 48,000 | 50,000 | |
| American Indian..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Life and related sciences | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | 19,700 | 19,700 | 34,500 | 40,000 | 47,000 | 19,700 | 34,500 | 40,000 | 47,000 | 24,500 | 35,000 | 44,000 | 45,000 | 28,000 | 39,000 | 58,000 | 65,000 | |
| Asian..... | - | - | - | - | - | - | - | - | - | - | 24,000 | - | - | - | 24,000 | 30,000 | 52,000 | 67,000 |
| Black, non-Hispanic..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19,600 | 49,000 | 50,000 | |
| Hispanic..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 30,000 | 61,000 | 85,000 | |
| American Indian..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Physical and related sciences | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | 27,000 | 27,000 | 40,000 | 48,600 | 57,500 | 27,000 | 40,000 | 48,600 | 57,500 | 25,700 | 42,000 | 57,300 | 60,000 | 38,000 | 51,300 | 64,000 | 72,000 | |
| Asian..... | 27,000 | 27,000 | - | - | - | 27,000 | - | - | - | 29,000 | 38,000 | 48,000 | - | - | 44,000 | 57,000 | 65,400 | |
| Black, non-Hispanic..... | 30,000 | 30,000 | - | - | - | 30,000 | - | - | - | - | 46,300 | - | - | - | 47,300 | 52,500 | 40,000 | |
| Hispanic..... | 20,000 | 20,000 | 33,000 | - | - | 20,000 | 33,000 | - | - | - | 37,300 | - | - | - | 51,000 | 51,000 | 69,500 | |
| American Indian..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Social and related sciences | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | 20,000 | 20,000 | 28,800 | 40,000 | - | 20,000 | 28,800 | 40,000 | - | 26,000 | 35,000 | 40,000 | 47,400 | 42,000 | 42,000 | 52,000 | 60,000 | |
| Asian..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 45,000 | 50,900 | 60,000 | |
| Black, non-Hispanic..... | - | - | - | - | - | - | - | - | - | - | 35,000 | 36,100 | - | - | 43,000 | 50,800 | 59,000 | |
| Hispanic..... | - | - | - | - | - | - | - | - | - | - | 36,000 | - | - | - | 40,000 | 50,000 | 53,000 | |
| American Indian..... | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 48,000 | 50,000 | - | |
| Engineering | | | | | | | | | | | | | | | | | | |
| White, non-Hispanic..... | 38,000 | 38,000 | 50,000 | 58,000 | 61,000 | 38,000 | 50,000 | 58,000 | 61,000 | 42,000 | 56,000 | 64,000 | 68,000 | 49,000 | 60,000 | 70,000 | 76,800 | |
| Asian..... | 38,000 | 38,000 | 45,000 | 53,000 | 56,000 | 38,000 | 45,000 | 53,000 | 56,000 | 40,000 | 52,000 | 60,000 | 60,000 | 54,000 | 56,000 | 67,000 | 74,900 | |
| Black, non-Hispanic..... | 40,000 | 40,000 | 48,000 | 54,300 | 50,000 | 40,000 | 48,000 | 54,300 | 50,000 | 42,000 | 50,000 | 65,000 | - | - | 55,000 | 69,600 | 68,000 | |
| Hispanic..... | 37,500 | 37,500 | 48,000 | 53,000 | 62,900 | 37,500 | 48,000 | 53,000 | 62,900 | 43,000 | 52,000 | 65,000 | 66,000 | - | 52,000 | 55,000 | 60,000 | |
| American Indian..... | 36,000 | 36,000 | 48,000 | - | - | 36,000 | 48,000 | - | - | - | - | - | - | - | - | - | - | |

KEY: - = Fewer than 20 individuals reporting salary.

NOTES: Because of rounding, details may not add up to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-22. Scientists and engineers in the U.S. labor force, by occupation, sex, race/ethnicity, and highest degree: 1995

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| Occupation and highest degree | Total | | Hispanic | | White | | Black | | Asian | | American Indian | |
|--|---------|-----------|----------|--------|---------|-----------|--------|--------|--------|---------|-----------------|-------|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| All science and engineering..... | 727,800 | 2,528,200 | 21,000 | 70,600 | 583,400 | 2,118,500 | 40,900 | 67,600 | 71,300 | 241,800 | 2,000 | 6,000 |
| Bachelor's..... | 385,300 | 1,498,000 | 11,800 | 44,500 | 311,200 | 1,305,200 | 26,300 | 46,200 | 35,000 | 97,300 | 1,100 | 3,700 |
| Master's..... | 237,600 | 678,100 | 6,500 | 18,100 | 194,200 | 549,000 | 11,200 | 15,000 | 25,000 | 94,500 | 600 | 1,200 |
| Doctorate..... | 95,800 | 329,900 | 2,700 | 8,000 | 78,000 | 264,300 | 3,400 | 6,400 | 11,300 | 50,000 | 300 | 1,100 |
| Computer and mathematics sciences..... | 278,900 | 684,700 | 6,000 | 17,500 | 223,700 | 571,900 | 16,900 | 22,900 | 31,600 | 70,700 | 600 | 1,100 |
| Bachelor's..... | 189,600 | 445,800 | 4,600 | 13,200 | 155,000 | 384,300 | 12,000 | 17,200 | 17,500 | 30,000 | 500 | 700 |
| Master's..... | 79,500 | 194,100 | 1,200 | 3,200 | 61,500 | 152,600 | 4,200 | 5,100 | 12,400 | 32,800 | 100 | 200 |
| Doctorate..... | 9,800 | 44,800 | 200 | 1,100 | 7,200 | 35,000 | 700 | 600 | 1,700 | 7,900 | - | 200 |
| Computer and information science | | | | | | | | | | | | |
| Bachelor's..... | 178,500 | 426,700 | 4,600 | 12,500 | 145,600 | 368,600 | 10,800 | 15,900 | 17,000 | 29,100 | 500 | 600 |
| Master's..... | 58,500 | 166,000 | 600 | 3,000 | 44,100 | 128,500 | 2,600 | 4,000 | 11,200 | 30,200 | - | 100 |
| Doctorate..... | 3,600 | 18,900 | 100 | 400 | 2,400 | 14,500 | 300 | 100 | 800 | 3,900 | - | - |
| Mathematical science | | | | | | | | | | | | |
| Bachelor's..... | 5,400 | 11,200 | - | 400 | 5,000 | 9,300 | 300 | 900 | 100 | 100 | - | - |
| Master's..... | 5,700 | 8,600 | 100 | - | 4,700 | 7,200 | 600 | 500 | 300 | 800 | - | 100 |
| Doctorate..... | 1,600 | 6,100 | - | 200 | 1,300 | 4,600 | - | 100 | 200 | 1,200 | - | - |
| Postsecondary mathematics | | | | | | | | | | | | |
| Bachelor's..... | 5,600 | 7,900 | - | 300 | 4,500 | 6,400 | 800 | 400 | 400 | 700 | - | - |
| Master's..... | 15,300 | 19,500 | 500 | 200 | 12,800 | 16,900 | 1,000 | 700 | 900 | 1,700 | 100 | - |
| Doctorate..... | 4,600 | 19,900 | 100 | 600 | 3,400 | 16,000 | 300 | 400 | 700 | 2,800 | - | 100 |
| Life and related science..... | 104,100 | 189,400 | 3,000 | 5,300 | 85,100 | 162,100 | 3,900 | 4,800 | 11,700 | 16,800 | 300 | 400 |
| Bachelor's..... | 47,800 | 76,100 | 1,600 | 2,700 | 40,800 | 67,000 | 1,900 | 2,300 | 3,400 | 3,800 | 100 | 200 |
| Master's..... | 28,600 | 36,600 | 600 | 600 | 22,600 | 32,100 | 1,500 | 1,000 | 3,600 | 2,900 | 100 | - |
| Doctorate..... | 27,700 | 76,700 | 800 | 2,000 | 21,700 | 63,000 | 500 | 1,500 | 4,700 | 10,100 | 100 | 200 |
| Agricultural/food science | | | | | | | | | | | | |
| Bachelor's..... | 7,600 | 17,300 | 100 | 800 | 6,900 | 15,100 | 200 | 1,000 | 400 | 300 | - | - |
| Master's..... | 2,500 | 7,100 | 100 | 100 | 2,200 | 6,200 | - | 300 | 200 | 500 | - | - |
| Doctorate..... | 1,500 | 8,200 | 100 | 500 | 1,000 | 6,700 | - | 100 | 400 | 900 | - | - |
| Biological science | | | | | | | | | | | | |
| Bachelor's..... | 32,500 | 38,800 | 1,100 | 1,500 | 27,100 | 33,400 | 1,600 | 1,200 | 2,500 | 2,700 | 100 | 100 |
| Master's..... | 16,100 | 17,500 | 200 | 300 | 12,200 | 15,100 | 700 | 300 | 2,800 | 1,900 | - | - |
| Doctorate..... | 17,800 | 41,700 | 600 | 1,200 | 13,200 | 32,300 | 200 | 700 | 3,800 | 7,300 | 100 | 100 |
| Environmental science | | | | | | | | | | | | |
| Bachelor's..... | 2,000 | 12,000 | - | 200 | 2,000 | 11,300 | - | 100 | - | 200 | - | 100 |
| Master's..... | 800 | 5,100 | 100 | - | 600 | 5,000 | - | - | - | - | - | - |
| Doctorate..... | 100 | 700 | - | - | 100 | 700 | - | - | - | - | - | - |

See explanatory information and SOURCES at end of table.

Appendix table 5-22. Scientists and engineers in the U.S. labor force, by occupation, sex, race/ethnicity, and highest degree: 1995

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| Occupation and highest degree | Total | | Hispanic | | White | | Black | | Asian | | American Indian | |
|-----------------------------------|---------|---------|----------|-------|---------|---------|-------|-------|-------|--------|-----------------|-----|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| Postsecondary life sciences | | | | | | | | | | | | |
| Bachelor's..... | 5,800 | 8,000 | 300 | 200 | 4,800 | 7,200 | 200 | 100 | 500 | 600 | - | - |
| Master's..... | 9,300 | 7,000 | 300 | 100 | 7,500 | 5,900 | 800 | 500 | 600 | 500 | - | - |
| Doctorate..... | 8,300 | 26,200 | 200 | 300 | 7,400 | 23,200 | 200 | 700 | 600 | 1,900 | - | - |
| Physical and related science..... | 61,000 | 220,500 | 2,100 | 5,000 | 47,000 | 190,800 | 3,300 | 4,800 | 8,300 | 19,400 | 300 | 600 |
| Bachelor's..... | 34,300 | 96,700 | 1,300 | 1,900 | 26,200 | 87,900 | 2,700 | 2,900 | 3,900 | 3,800 | 200 | 300 |
| Master's..... | 16,900 | 52,900 | 600 | 1,600 | 13,300 | 44,700 | 400 | 700 | 2,500 | 5,800 | 100 | 100 |
| Doctorate..... | 9,800 | 70,900 | 200 | 1,500 | 7,500 | 58,200 | 200 | 1,200 | 1,900 | 9,800 | - | 200 |
| Chemistry | | | | | | | | | | | | |
| Bachelor's..... | 19,600 | 46,700 | 500 | 800 | 13,900 | 41,000 | 1,800 | 2,600 | 3,400 | 2,100 | - | 300 |
| Master's..... | 6,100 | 14,800 | 400 | 100 | 4,300 | 11,600 | 100 | 500 | 1,300 | 2,500 | - | 100 |
| Doctorate..... | 4,000 | 22,600 | 100 | 700 | 2,800 | 16,700 | 100 | 500 | 1,000 | 4,800 | - | - |
| Earth science | | | | | | | | | | | | |
| Bachelor's..... | 6,700 | 30,400 | 500 | 700 | 5,700 | 28,400 | 100 | 100 | 200 | 1,100 | 200 | 100 |
| Master's..... | 5,300 | 20,100 | 100 | 800 | 4,800 | 18,000 | 200 | - | - | 1,400 | 100 | - |
| Doctorate..... | 1,300 | 9,300 | - | 100 | 1,200 | 8,100 | - | 200 | 100 | 800 | - | - |
| Physics | | | | | | | | | | | | |
| Bachelor's..... | 1,000 | 6,400 | - | 200 | 800 | 6,000 | 200 | - | - | 200 | - | - |
| Master's..... | 1,600 | 6,500 | - | 100 | 1,200 | 5,600 | - | - | 400 | 800 | - | - |
| Doctorate..... | 800 | 13,700 | - | 200 | 500 | 11,400 | - | 100 | 300 | 2,000 | - | - |
| Other physical science | | | | | | | | | | | | |
| Bachelor's..... | 3,100 | 6,200 | 200 | 100 | 2,700 | 5,900 | 200 | - | - | 100 | - | - |
| Master's..... | 1,300 | 3,900 | - | 200 | 1,000 | 3,300 | - | - | 200 | 400 | - | - |
| Doctorate..... | 300 | 2,400 | - | - | 200 | 2,200 | - | - | 100 | 200 | - | - |
| Postsecondary physical science | | | | | | | | | | | | |
| Bachelor's..... | 3,800 | 7,200 | 100 | 100 | 3,100 | 6,600 | 300 | 200 | 200 | 300 | - | - |
| Master's..... | 2,600 | 7,600 | - | 500 | 2,000 | 6,200 | - | 100 | 500 | 800 | - | - |
| Doctorate..... | 3,300 | 22,800 | 100 | 500 | 2,700 | 19,900 | - | 400 | 400 | 1,900 | - | 100 |
| Social and related science..... | 156,300 | 157,200 | 5,000 | 4,800 | 136,400 | 137,500 | - | 7,300 | - | 6,500 | 600 | 900 |
| Bachelor's..... | 32,000 | 29,600 | 1,000 | 1,100 | 25,700 | 25,100 | 3,600 | 2,200 | 1,600 | 1,000 | 100 | 200 |
| Master's..... | 81,300 | 56,700 | 2,900 | 1,800 | 72,700 | 50,000 | 3,400 | 2,800 | 2,000 | 1,800 | 200 | 200 |
| Doctorate..... | 43,000 | 70,900 | 1,100 | 1,900 | 38,000 | 62,400 | 1,900 | 2,300 | 1,700 | 3,700 | 300 | 500 |

See explanatory information and SOURCES at end of table.

Appendix table 5-22. Scientists and engineers in the U.S. labor force, by occupation, sex, race/ethnicity, and highest degree: 1995

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| Occupation and highest degree | Total | | Hispanic | | White | | Black | | Asian | | American Indian | |
|-------------------------------|---------|-----------|----------|--------|--------|-----------|-------|--------|--------|---------|-----------------|-------|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| Economics | | | | | | | | | | | | |
| Bachelor's..... | 4,100 | 7,200 | - | 400 | 4,000 | 6,500 | 100 | 200 | - | 100 | - | - |
| Master's..... | 4,000 | 11,600 | 700 | 400 | 2,700 | 10,000 | - | 700 | 600 | 400 | - | 100 |
| Doctorate..... | 1,500 | 5,600 | - | 300 | 1,100 | 4,600 | - | 100 | 300 | 600 | - | 100 |
| Political science | | | | | | | | | | | | |
| Bachelor's..... | 2,100 | 3,000 | 100 | - | 1,600 | 2,700 | 100 | 100 | 200 | 200 | - | - |
| Master's..... | 1,600 | 1,100 | 200 | 200 | 1,300 | 600 | - | - | - | 300 | - | - |
| Doctorate..... | 300 | 900 | - | 100 | 300 | 700 | - | - | - | 100 | - | - |
| Psychology | | | | | | | | | | | | |
| Bachelor's..... | 16,800 | 9,100 | 700 | 400 | 13,000 | 7,400 | 2,100 | 800 | 1,000 | 200 | - | 200 |
| Master's..... | 60,300 | 29,600 | 1,600 | 600 | 55,500 | 27,000 | 2,200 | 1,500 | 800 | 300 | 200 | 100 |
| Doctorate..... | 22,800 | 25,600 | 500 | 600 | 20,700 | 24,000 | 900 | 500 | 400 | 500 | 100 | 100 |
| Sociology | | | | | | | | | | | | |
| Bachelor's..... | 3,300 | 4,500 | - | 200 | 2,900 | 4,100 | 200 | 200 | 200 | 100 | 100 | - |
| Master's..... | 3,200 | 2,300 | - | - | 2,900 | 2,100 | - | - | 100 | 200 | - | - |
| Doctorate..... | 1,300 | 1,800 | - | - | 1,100 | 1,700 | 100 | - | - | - | - | - |
| Other social science | | | | | | | | | | | | |
| Bachelor's..... | 1,800 | 2,000 | 100 | - | 1,500 | 1,400 | 200 | 400 | - | 100 | - | - |
| Master's..... | 2,200 | 2,700 | - | - | 1,900 | 2,500 | 100 | 100 | 100 | 100 | - | - |
| Doctorate..... | 1,400 | 1,600 | 100 | 100 | 1,100 | 1,400 | 200 | - | 100 | 100 | - | - |
| Postsecondary social sciences | | | | | | | | | | | | |
| Bachelor's..... | 3,800 | 3,800 | - | 100 | 2,800 | 2,900 | 800 | 400 | 200 | 300 | - | - |
| Master's..... | 10,100 | 9,400 | 400 | 600 | 8,300 | 7,900 | 1,100 | 400 | 400 | 500 | - | 100 |
| Doctorate..... | 15,700 | 35,300 | 500 | 800 | 13,700 | 30,100 | 600 | 1,700 | 900 | 2,500 | 100 | 300 |
| Engineering..... | 118,600 | 1,254,200 | 4,800 | 38,000 | 91,000 | 1,056,200 | 8,100 | 27,700 | 14,400 | 128,500 | 200 | 3,100 |
| Bachelor's..... | 81,700 | 849,800 | 3,400 | 25,600 | 63,400 | 741,000 | 6,100 | 21,500 | 8,600 | 58,800 | 200 | 2,300 |
| Master's..... | 31,400 | 337,800 | 1,100 | 10,900 | 24,000 | 269,600 | 1,800 | 5,300 | 4,500 | 51,200 | - | 700 |
| Doctorate..... | 5,500 | 66,600 | 300 | 1,500 | 3,600 | 45,600 | 200 | 900 | 1,300 | 18,500 | - | 100 |
| Aerospace engineering | | | | | | | | | | | | |
| Bachelor's..... | 2,900 | 41,000 | 100 | 1,700 | 2,400 | 35,700 | 300 | 900 | 100 | 2,500 | - | 200 |
| Master's..... | 1,500 | 25,300 | - | 1,100 | 1,200 | 21,500 | 200 | 300 | 200 | 2,200 | - | - |
| Doctorate..... | 200 | 4,200 | - | 100 | 100 | 3,100 | - | - | - | 1,000 | - | - |
| Chemical engineering | | | | | | | | | | | | |
| Bachelor's..... | 6,300 | 40,300 | 300 | 1,300 | 4,500 | 34,500 | 600 | 1,200 | 900 | 3,300 | - | - |
| Master's..... | 2,200 | 17,700 | - | 600 | 1,700 | 14,600 | 200 | 400 | 200 | 2,200 | - | - |
| Doctorate..... | 900 | 5,500 | - | 100 | 700 | 3,700 | - | 100 | 100 | 1,600 | - | - |

See explanatory information and SOURCES at end of table.

Appendix table 5-22. Scientists and engineers in the U.S. labor force, by occupation, sex, race/ethnicity, and highest degree: 1995

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| Occupation and highest degree | Total | | Hispanic | | White | | Black | | Asian | | American Indian | |
|-------------------------------|--------|---------|----------|-------|--------|---------|-------|-------|-------|--------|-----------------|-----|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| Civil engineering | | | | | | | | | | | | |
| Bachelor's..... | 14,000 | 131,700 | 400 | 4,900 | 11,100 | 113,700 | 400 | 2,500 | 2,000 | 10,300 | - | 300 |
| Master's..... | 4,100 | 48,600 | 300 | 1,800 | 2,800 | 37,000 | 200 | 500 | 800 | 9,300 | - | 100 |
| Doctorate..... | 300 | 3,600 | - | 100 | 100 | 2,000 | - | 100 | 200 | 1,400 | - | - |
| Electrical engineering | | | | | | | | | | | | |
| Bachelor's..... | 16,400 | 233,400 | 800 | 8,100 | 10,900 | 195,000 | 1,700 | 7,600 | 2,900 | 22,000 | - | 800 |
| Master's..... | 6,300 | 98,400 | 200 | 3,500 | 4,000 | 75,200 | 600 | 1,900 | 1,600 | 17,600 | - | 100 |
| Doctorate..... | 500 | 13,400 | - | 300 | 100 | 8,600 | - | 100 | 300 | 4,400 | - | - |
| Industrial engineering | | | | | | | | | | | | |
| Bachelor's..... | 7,100 | 46,800 | 300 | 1,400 | 5,500 | 41,200 | 800 | 2,400 | 500 | 1,600 | - | 200 |
| Master's..... | 2,400 | 14,700 | - | 300 | 2,100 | 12,600 | 100 | 100 | 100 | 1,500 | - | 100 |
| Doctorate..... | 100 | 800 | - | - | 100 | 500 | - | - | - | 200 | - | - |
| Mechanical engineering | | | | | | | | | | | | |
| Bachelor's..... | 10,300 | 185,100 | 200 | 5,000 | 8,800 | 164,600 | 500 | 4,200 | 800 | 10,300 | - | 500 |
| Master's..... | 4,000 | 53,300 | 100 | 1,400 | 3,000 | 41,900 | 200 | 800 | 600 | 9,000 | - | 300 |
| Doctorate..... | 700 | 7,400 | - | 200 | 500 | 4,300 | 100 | 100 | 100 | 2,900 | - | - |
| Other engineering | | | | | | | | | | | | |
| Bachelor's..... | 24,500 | 166,300 | 1,200 | 3,300 | 20,100 | 152,300 | 1,700 | 2,600 | 1,300 | 7,900 | 200 | 300 |
| Master's..... | 9,800 | 72,200 | 300 | 1,700 | 8,300 | 61,200 | 300 | 1,100 | 900 | 8,100 | - | 100 |
| Doctorate..... | 1,600 | 15,200 | - | 300 | 1,100 | 11,100 | 100 | 100 | 400 | 3,700 | - | - |
| Postsecondary engineering | | | | | | | | | | | | |
| Bachelor's..... | 200 | 5,100 | - | - | 100 | 4,100 | - | 200 | 100 | 900 | - | - |
| Master's..... | 1,000 | 7,500 | 100 | 400 | 900 | 5,600 | - | 200 | 100 | 1,300 | - | - |
| Doctorate..... | 1,200 | 16,400 | 200 | 400 | 800 | 12,200 | - | 400 | 200 | 3,400 | - | 100 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "professional and other degrees." Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

**Appendix table 5-23. Employment status of scientists and engineers,
by occupation, sex, and race/ethnicity: 1995**

Page 1 of 2

| Occupation, sex, and race/ethnicity | Total | Full-time employed in field | Full-time employed outside field | Part-time employed | Not employed | Not in labor force |
|-------------------------------------|-----------|-----------------------------------|--|-----------------------|-----------------|-----------------------|
| Science and engineering total..... | 3,708,300 | 2,656,700 | 285,900 | 242,900 | 70,500 | 452,300 |
| Women | | | | | | |
| Hispanic..... | 25,000 | 17,000 | 900 | 2,900 | 500 | 3,700 |
| White, non-Hispanic..... | 684,000 | 417,100 | 59,100 | 104,200 | 10,600 | 92,900 |
| Black, non-Hispanic..... | 44,600 | 31,700 | 4,200 | 4,200 | 1,100 | 3,500 |
| Asian..... | 79,300 | 57,200 | 7,300 | 5,600 | 2,200 | 7,000 |
| American Indian..... | 2,300 | 1,500 | 300 | 200 | - | 300 |
| Other..... | 300 | 200 | - | - | - | 100 |
| Men | | | | | | |
| Hispanic..... | 77,000 | 60,600 | 5,400 | 3,300 | 2,000 | 5,600 |
| White, non-Hispanic..... | 2,454,900 | 1,801,300 | 187,100 | 104,800 | 44,000 | 317,700 |
| Black, non-Hispanic..... | 74,500 | 56,000 | 7,500 | 3,900 | 1,600 | 5,400 |
| Asian..... | 258,800 | 207,200 | 13,900 | 13,400 | 8,400 | 15,900 |
| American Indian..... | 6,300 | 5,400 | 200 | 400 | 100 | 200 |
| Other..... | 1,500 | 1,500 | - | - | - | - |
| Computer and mathematics sciences | | | | | | |
| Women | | | | | | |
| Hispanic..... | 6,900 | 4,800 | 800 | 400 | - | 800 |
| White, non-Hispanic..... | 253,600 | 141,600 | 48,000 | 31,000 | 3,300 | 29,800 |
| Black, non-Hispanic..... | 18,000 | 11,800 | 3,100 | 1,500 | 400 | 1,200 |
| Asian..... | 33,800 | 25,000 | 5,000 | 1,200 | 400 | 2,100 |
| American Indian..... | 700 | 500 | 100 | 100 | - | 100 |
| Other..... | - | - | - | - | - | - |
| Men | | | | | | |
| Hispanic..... | 18,400 | 13,600 | 2,700 | 600 | 700 | 900 |
| White, non-Hispanic..... | 606,700 | 434,500 | 107,500 | 22,200 | 9,600 | 32,900 |
| Black, non-Hispanic..... | 24,000 | 18,200 | 3,900 | 700 | 400 | 800 |
| Asian..... | 73,200 | 58,900 | 6,800 | 3,300 | 1,800 | 2,400 |
| American Indian..... | 1,000 | 800 | 100 | 100 | 100 | - |
| Other..... | 700 | 700 | - | - | - | - |
| Life and related sciences | | | | | | |
| Women | | | | | | |
| Hispanic..... | 3,900 | 2,300 | - | 800 | 100 | 800 |
| White, non-Hispanic..... | 105,600 | 70,000 | 2,100 | 14,000 | 2,300 | 17,200 |
| Black, non-Hispanic..... | 5,600 | 3,900 | - | 300 | - | 1,400 |
| Asian..... | 14,600 | 10,500 | 400 | 1,300 | 500 | 1,900 |
| American Indian..... | 200 | 200 | - | - | - | - |
| Other..... | 200 | 200 | - | - | - | 100 |
| Men | | | | | | |
| Hispanic..... | 6,600 | 5,000 | 200 | 300 | 200 | 1,000 |
| White, non-Hispanic..... | 200,400 | 153,800 | 6,400 | 10,900 | 2,400 | 26,900 |
| Black, non-Hispanic..... | 6,700 | 4,600 | 500 | 500 | - | 1,100 |
| Asian..... | 20,300 | 15,200 | 300 | 1,300 | 700 | 2,800 |
| American Indian..... | 500 | 400 | - | - | - | - |
| Other..... | - | - | - | - | - | - |
| Physical and related sciences | | | | | | |
| Women | | | | | | |
| Hispanic..... | 2,900 | 1,900 | - | 100 | 200 | 800 |
| White, non-Hispanic..... | 59,900 | 36,300 | 2,400 | 7,300 | 1,100 | 12,900 |
| Black, non-Hispanic..... | 3,300 | 2,600 | 200 | 200 | 100 | - |
| Asian..... | 9,300 | 6,900 | - | 900 | 500 | 1,100 |
| American Indian..... | 300 | 100 | 200 | - | - | - |
| Other..... | - | - | - | - | - | - |

See explanatory information and SOURCES at end of table.

**Appendix table 5-23. Employment status of scientists and engineers,
by occupation, sex, and race/ethnicity: 1995**

Page 2 of 2

| Occupation, sex, and race/ethnicity | Total | Full-time employed in field | Full-time employed outside field | Part-time employed | Not employed | Not in labor force |
|-------------------------------------|-----------|-----------------------------------|--|-----------------------|-----------------|-----------------------|
| Men | | | | | | |
| Hispanic..... | 5,400 | 4,200 | 500 | 200 | 100 | 400 |
| White, non-Hispanic..... | 222,500 | 166,600 | 5,900 | 14,200 | 4,400 | 31,400 |
| Black, non-Hispanic..... | 5,900 | 4,100 | 400 | 300 | 100 | 1,000 |
| Asian..... | 20,800 | 16,200 | 700 | 1,700 | 900 | 1,400 |
| American Indian..... | 700 | 500 | - | - | - | 100 |
| Other..... | - | - | - | - | - | - |
| Social and related sciences | | | | | | |
| Women | | | | | | |
| Hispanic..... | 6,200 | 3,800 | - | 1,100 | 100 | 1,100 |
| White, non-Hispanic..... | 160,000 | 92,100 | 2,200 | 44,700 | 1,700 | 19,400 |
| Black, non-Hispanic..... | 9,600 | 6,600 | 300 | 2,000 | 100 | 700 |
| Asian..... | 5,900 | 3,700 | - | 1,500 | 100 | 600 |
| American Indian..... | 800 | 500 | - | 100 | - | 200 |
| Other..... | - | - | - | - | - | - |
| Men | | | | | | |
| Hispanic..... | 5,400 | 3,400 | 300 | 1,100 | 200 | 300 |
| White, non-Hispanic..... | 158,600 | 118,400 | 2,700 | 17,900 | 1,600 | 18,000 |
| Black, non-Hispanic..... | 8,600 | 5,700 | 400 | 1,600 | - | 800 |
| Asian..... | 7,800 | 4,800 | - | 1,600 | 100 | 1,200 |
| American Indian..... | 900 | 800 | - | 100 | - | - |
| Other..... | - | - | - | - | - | - |
| Engineering | | | | | | |
| Women | | | | | | |
| Hispanic..... | 5,000 | 4,200 | 100 | 500 | 100 | 200 |
| White, non-Hispanic..... | 104,800 | 77,100 | 4,400 | 7,300 | 2,300 | 13,700 |
| Black, non-Hispanic..... | 8,200 | 6,800 | 600 | 200 | 500 | 200 |
| Asian..... | 15,600 | 11,100 | 1,800 | 600 | 800 | 1,200 |
| American Indian..... | 300 | 300 | - | - | - | - |
| Other..... | 41,200 | 34,500 | 1,800 | 1,200 | 800 | 3,000 |
| Men | | | | | | |
| Hispanic..... | 1,266,700 | 927,900 | 64,600 | 39,700 | 26,000 | 208,500 |
| White, non-Hispanic..... | 29,300 | 23,400 | 2,400 | 900 | 1,000 | 1,700 |
| Black, non-Hispanic..... | 136,900 | 112,100 | 6,200 | 5,500 | 4,900 | 8,200 |
| Asian..... | 3,200 | 2,900 | 100 | 200 | - | 100 |
| American Indian..... | 800 | 800 | - | - | - | - |
| Other..... | 800 | 800 | - | - | - | - |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals.

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-24. Full-time doctoral scientists and engineers in 4-year colleges or universities, by academic rank, sex, and race/ethnicity: 1995

| Sex and academic rank | Total | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian | Page 1 of 1 |
|---|---------|---------------------|--------|---------------------|----------|-----------------|-------------|
| Both sexes | | | | | | | |
| Total..... | 170,400 | 141,500 | 19,700 | 3,900 | 4,600 | 700 | |
| Not applicable at this institution..... | 2,600 | 2,100 | 400 | - | 100 | - | |
| Not applicable for my position..... | 24,200 | 17,900 | 5,100 | 500 | 600 | - | |
| Professor..... | 60,400 | 53,600 | 4,400 | 800 | 1,100 | 400 | |
| Associate professor..... | 40,000 | 33,800 | 3,700 | 1,200 | 1,100 | 200 | |
| Assistant professor..... | 34,800 | 27,600 | 4,400 | 1,200 | 1,400 | 100 | |
| Instructor..... | 2,000 | 1,500 | 300 | - | 100 | - | |
| Lecturer..... | 1,700 | 1,500 | 100 | - | 100 | - | |
| Adjunct faculty..... | 2,200 | 1,800 | 300 | - | - | - | |
| Other..... | 2,500 | 1,600 | 800 | - | 100 | - | |
| Women | | | | | | | |
| Total..... | 35,700 | 29,600 | 3,600 | 1,100 | 1,200 | 100 | |
| Not applicable at this institution..... | 400 | 400 | 100 | - | - | - | |
| Not applicable for my position..... | 7,500 | 5,700 | 1,400 | 200 | 200 | - | |
| Professor..... | 6,000 | 5,300 | 400 | 100 | 100 | 100 | |
| Associate professor..... | 7,900 | 6,900 | 400 | 300 | 200 | - | |
| Assistant professor..... | 11,000 | 8,900 | 1,000 | 500 | 500 | 100 | |
| Instructor..... | 1,000 | 800 | 100 | - | 100 | - | |
| Lecturer..... | 600 | 500 | - | - | - | - | |
| Adjunct faculty..... | 700 | 600 | 100 | - | - | - | |
| Other..... | 600 | 400 | 100 | - | - | - | |
| Men | | | | | | | |
| Total..... | 134,700 | 111,900 | 16,000 | 2,800 | 3,300 | 600 | |
| Not applicable at this institution..... | 2,100 | 1,700 | 300 | - | 100 | - | |
| Not applicable for my position..... | 16,800 | 12,300 | 3,800 | 300 | 400 | - | |
| Professor..... | 54,300 | 48,300 | 4,100 | 700 | 1,000 | 300 | |
| Associate professor..... | 32,000 | 26,900 | 3,200 | 900 | 900 | 200 | |
| Assistant professor..... | 23,800 | 18,700 | 3,400 | 800 | 900 | - | |
| Instructor..... | 1,000 | 700 | 200 | - | - | - | |
| Lecturer..... | 1,100 | 1,000 | 100 | - | - | - | |
| Adjunct faculty..... | 1,500 | 1,200 | 300 | - | - | - | |
| Other..... | 1,900 | 1,200 | 700 | - | 100 | - | |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-25. Full-time doctoral scientists and engineers in 4-year colleges or universities, by sex, race/ethnicity, and tenure: 1995

Page 1 of 1

| Sex and tenure | Total | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian |
|---|---------|---------------------|--------|---------------------|----------|-----------------|
| Both sexes | | | | | | |
| Total..... | 170,400 | 141,500 | 19,600 | 3,900 | 4,500 | 700 |
| No tenure system at this institution..... | 5,800 | 4,400 | 1,000 | 100 | 200 | - |
| No tenure system for my position..... | 26,600 | 20,400 | 5,000 | 500 | 700 | - |
| Tenured..... | 91,800 | 80,600 | 6,900 | 1,800 | 1,900 | 500 |
| On tenure track but not tenured..... | 30,700 | 24,100 | 3,900 | 1,200 | 1,400 | 100 |
| Not on tenure track..... | 15,500 | 12,000 | 2,900 | 200 | 400 | - |
| Women | | | | | | |
| Total..... | 35,700 | 29,600 | 3,600 | 1,100 | 1,200 | 100 |
| No tenure system at this institution..... | 1,100 | 900 | 200 | - | - | - |
| No tenure system for my position..... | 8,000 | 6,300 | 1,200 | 200 | 300 | - |
| Tenured..... | 12,500 | 11,100 | 600 | 400 | 300 | 100 |
| On tenure track but not tenured..... | 8,900 | 7,200 | 800 | 400 | 500 | - |
| Not on tenure track..... | 5,200 | 4,100 | 800 | 100 | 200 | - |
| Men | | | | | | |
| Total..... | 134,700 | 111,900 | 16,000 | 2,800 | 3,300 | 600 |
| No tenure system at this institution..... | 4,700 | 3,600 | 800 | 100 | 200 | - |
| No tenure system for my position..... | 18,600 | 14,100 | 3,800 | 300 | 400 | - |
| Tenured..... | 79,300 | 69,500 | 6,300 | 1,400 | 1,600 | 500 |
| On tenure track but not tenured..... | 21,800 | 16,900 | 3,100 | 800 | 900 | - |
| Not on tenure track..... | 10,300 | 7,800 | 2,000 | 200 | 200 | - |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity.
Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-26. Scientists and engineers employed in business or industry, by sex, race/ethnicity, and primary work activity: 1995

Page 1 of 1

| Primary work activity and sex | Race/ethnicity | | | | | | |
|-------------------------------|----------------|---------------------|---------|---------------------|----------|-----------------|-------|
| | Total | White, non-Hispanic | Asian | Black, non-Hispanic | Hispanic | American Indian | Other |
| Total..... | 1,849,800 | 1,558,700 | 186,400 | 51,700 | 48,900 | 3,800 | 100 |
| Women..... | 333,500 | 268,200 | 38,900 | 17,000 | 8,600 | 700 | - |
| Men..... | 1,516,300 | 1,290,500 | 147,500 | 34,700 | 40,300 | 3,100 | 100 |
| Research and development | | | | | | | |
| Women..... | 92,700 | 71,100 | 13,200 | 5,500 | 2,600 | 300 | - |
| Men..... | 606,400 | 515,900 | 61,500 | 11,300 | 16,000 | 1,500 | 100 |
| Teaching | | | | | | | |
| Women..... | 4,700 | 4,500 | - | 100 | 100 | - | - |
| Men..... | 6,200 | 5,300 | 400 | 300 | 100 | 100 | - |
| Management and administration | | | | | | | |
| Women..... | 60,100 | 50,000 | 5,100 | 2,900 | 1,800 | 200 | - |
| Men..... | 331,200 | 293,200 | 20,500 | 8,200 | 8,700 | 600 | - |
| Computer applications | | | | | | | |
| Women..... | 127,600 | 101,100 | 17,200 | 6,100 | 3,100 | 200 | - |
| Men..... | 410,700 | 337,700 | 50,200 | 11,600 | 10,300 | 800 | - |
| Other | | | | | | | |
| Women..... | 48,500 | 41,500 | 3,300 | 2,500 | 1,000 | 100 | - |
| Men..... | 161,800 | 138,400 | 14,900 | 3,200 | 5,100 | 200 | - |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-27. Median annual salaries of full-time employed scientists and engineers, by occupation, age, sex, and race/ethnicity: 1995

Page 1 of 1

| Occupation and age | Women | | | | | Men | | | | |
|-----------------------------------|----------------------------|----------|----------------------------|----------|--------------------|----------------------------|----------|----------------------------|----------|--------------------|
| | White, non- Hispanic | Asian | Black, non- Hispanic | Hispanic | American Indian | White, non- Hispanic | Asian | Black, non- Hispanic | Hispanic | American Indian |
| Science and engineering total | | | | | | | | | | |
| 20-29..... | \$31,000 | \$34,000 | \$33,000 | \$28,500 | \$31,000 | \$36,000 | \$40,000 | \$36,000 | \$36,000 | \$34,000 |
| 30-39..... | 43,000 | 45,000 | 43,000 | 39,000 | 35,000 | 50,000 | 50,000 | 47,000 | 47,000 | 48,000 |
| 40-49..... | 47,692 | 45,000 | 47,500 | 41,000 | 48,000 | 58,800 | 59,000 | 48,900 | 54,000 | 49,000 |
| 50 or older..... | 49,344 | 48,000 | 34,000 | 50,000 | 58,000 | 62,000 | 60,000 | 54,000 | 60,000 | 61,000 |
| Computer and mathematics sciences | | | | | | | | | | |
| 20-29..... | 38,000 | 38,500 | 32,000 | - | - | 38,600 | 43,000 | 36,000 | 35,000 | - |
| 30-39..... | 45,000 | 48,000 | 41,000 | 40,000 | - | 50,000 | 54,000 | 49,200 | 48,000 | - |
| 40-49..... | 50,000 | 50,000 | 48,000 | - | - | 59,000 | 59,000 | 48,900 | 55,000 | - |
| 50 or older..... | 50,000 | 47,400 | - | - | - | 60,000 | 59,000 | 53,000 | 54,000 | - |
| Life and related sciences | | | | | | | | | | |
| 20-29..... | 20,000 | 26,000 | - | - | - | 21,000 | 15,000 | - | - | - |
| 30-39..... | 33,000 | 28,800 | 27,800 | 32,000 | - | 39,500 | 30,000 | 31,000 | 36,000 | - |
| 40-49..... | 45,000 | 38,000 | 36,300 | 29,000 | - | 48,500 | 51,300 | 48,000 | 43,000 | - |
| 50 or older..... | 43,400 | 50,000 | 33,000 | - | - | 60,000 | 65,000 | 41,300 | 43,500 | - |
| Physical and related sciences | | | | | | | | | | |
| 20-29..... | 29,000 | 29,500 | - | - | - | 25,000 | 25,000 | - | 16,000 | - |
| 30-39..... | 40,000 | 45,000 | 45,000 | 38,900 | - | 42,500 | 40,000 | 43,000 | 35,000 | - |
| 40-49..... | 46,000 | 43,000 | - | - | - | 57,800 | 50,000 | 45,000 | 52,000 | - |
| 50 or older..... | 44,900 | 46,100 | - | - | - | 65,000 | 55,000 | 47,000 | 60,000 | - |
| Social and related sciences | | | | | | | | | | |
| 20-29..... | 23,000 | - | - | 16,000 | - | 25,000 | - | - | - | - |
| 30-39..... | 35,500 | 45,000 | 34,200 | 35,000 | - | 39,000 | 40,000 | 49,900 | 40,000 | - |
| 40-49..... | 41,500 | 45,000 | 37,800 | 42,500 | - | 48,600 | 55,000 | 35,000 | 48,000 | - |
| 50 or older..... | 47,400 | 53,700 | 29,000 | 50,000 | - | 59,000 | 56,000 | 63,000 | 53,000 | - |
| Engineering | | | | | | | | | | |
| 20-29..... | 38,800 | 37,700 | 42,000 | 40,000 | - | 38,000 | 39,000 | 40,000 | 40,000 | 37,800 |
| 30-39..... | 49,600 | 50,000 | 49,100 | 49,700 | - | 52,000 | 50,000 | 48,000 | 49,000 | 48,000 |
| 40-49..... | 52,000 | 48,000 | - | - | - | 60,000 | 60,000 | 58,000 | 58,600 | - |
| 50 or older..... | 60,000 | 51,000 | - | - | - | 64,000 | 60,000 | 62,000 | 65,000 | - |

KEY: - = Fewer than 20 individuals reporting salary.

NOTES: Because of rounding, details may not add up to totals. Total includes "other" race/ethnicity. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Table 5-28. U.S. population and scientists and engineers, by type of disability: 1995

Page 1 of 1

| U.S. population 15-64 years old | | | Scientists and engineers | | |
|---------------------------------------|-----------------------|---------|--|-----------|---------|
| Disability status and type | Number (in thousands) | Percent | Disability status and type | Number | Percent |
| Total population 15-64 years old..... | 171,112 | 100.0 | Total scientists and engineers..... | 3,708,400 | 100.0 |
| Having difficulty: | 31,061 | 18.2 | Moderate or severe difficulty or unable to do: | 235,300 | 6.3 |
| Seeing words and letters..... | 4,163 | 2.4 | Seeing words and letters..... | 87,100 | 2.3 |
| Hearing normal conversation..... | 4,702 | 2.7 | Hearing normal conversation..... | 110,100 | 3.0 |
| Having speech understood..... | 1,242 | 0.7 | Lifting and carrying 10 pounds..... | 59,000 | 1.6 |
| Lifting and carrying 10 pounds..... | 8,219 | 4.8 | Walking without assistance or using stairs.... | 50,700 | 1.4 |
| Climbing stairs without resting..... | 8,758 | 5.1 | | | |
| Walking 3 city blocks..... | 8,934 | 5.2 | | | |

NOTES: Because of rounding, details may not add up to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-29. Scientists and engineers with disabilities who are in the labor force, by age at onset of disability: 1995

| Age at onset | Number | Percent | Page 1 of 1 |
|----------------------|---------|---------|-------------|
| Total | 160,800 | 100.0 | |
| Since birth..... | 11,100 | 6.9 | |
| Younger than 10..... | 14,400 | 9.0 | |
| 10 to 19..... | 22,300 | 13.9 | |
| 20 to 29..... | 26,700 | 16.6 | |
| 30 to 39..... | 24,100 | 15.0 | |
| 40 to 49..... | 39,800 | 24.8 | |
| 50 or older..... | 22,400 | 13.9 | |

NOTES: Because of rounding, details may not add up to totals.
 Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-30. Employment status of scientists and engineers, by age and disability status: 1995

Page 1 of 1

| Age and disability status | Employment status | | | | | |
|-----------------------------------|-------------------|-----------------------------|----------------------------------|--------------------|--------------|--------------------|
| | Total | Full-time employed in field | Full-time employed outside field | Part-time employed | Not employed | Not in labor force |
| All ages | | | | | | |
| Persons without disabilities..... | 3,473,100 | 2,534,600 | 268,900 | 227,700 | 64,100 | 377,800 |
| Persons with disabilities..... | 235,300 | 122,100 | 17,000 | 15,300 | 6,500 | 74,500 |
| Younger than 35 | | | | | | |
| Persons without disabilities..... | 1,030,000 | 811,000 | 57,100 | 89,900 | 15,300 | 56,700 |
| Persons with disabilities..... | 21,700 | 16,900 | 1,400 | 1,400 | 600 | 1,500 |
| 35 to 44 | | | | | | |
| Persons without disabilities..... | 1,102,800 | 887,900 | 105,200 | 53,100 | 17,400 | 39,300 |
| Persons with disabilities..... | 44,100 | 34,600 | 3,100 | 1,600 | 1,500 | 3,200 |
| 45 to 54 | | | | | | |
| Persons without disabilities..... | 714,300 | 569,500 | 77,900 | 33,900 | 14,400 | 18,600 |
| Persons with disabilities..... | 62,000 | 43,200 | 9,200 | 3,200 | 2,000 | 4,400 |
| 55 or older | | | | | | |
| Persons without disabilities..... | 626,000 | 266,300 | 28,700 | 50,800 | 17,000 | 263,100 |
| Persons with disabilities..... | 107,500 | 27,400 | 3,300 | 9,000 | 2,400 | 65,400 |
| Percentage distribution: | | | | | | |
| Younger than 35 | | | | | | |
| Persons without disabilities..... | 100.0 | 78.7 | 5.5 | 8.7 | 1.5 | 5.5 |
| Persons with disabilities..... | 100.0 | 77.9 | 6.5 | 6.5 | 2.8 | 6.9 |
| 35 to 44 | | | | | | |
| Persons without disabilities..... | 100.0 | 80.5 | 9.5 | 4.8 | 1.6 | 3.6 |
| Persons with disabilities..... | 100.0 | 78.5 | 7.0 | 3.6 | 3.4 | 7.3 |
| 45 to 54 | | | | | | |
| Persons without disabilities..... | 100.0 | 79.7 | 10.9 | 4.7 | 2.0 | 2.6 |
| Persons with disabilities..... | 100.0 | 69.7 | 14.8 | 5.2 | 3.2 | 7.1 |
| 55 or older | | | | | | |
| Persons without disabilities..... | 100.0 | 42.5 | 4.6 | 8.1 | 2.7 | 42.0 |
| Persons with disabilities..... | 100.0 | 25.5 | 3.1 | 8.4 | 2.2 | 60.8 |

NOTE: Because of rounding, details may not add to totals. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS. 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998

Appendix table 5-31. Scientists and engineers in the U.S. labor force, by occupation, disability status, and highest degree: 1995

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| Occupation | All degrees | | Bachelor's | | Master's | | Doctorate | |
|---------------------------------------|------------------------------|---------------------------|------------------------------|---------------------------|------------------------------|---------------------------|------------------------------|---------------------------|
| | Persons without disabilities | Persons with disabilities |
| Total science and engineering..... | 3,095,300 | 160,800 | 1,793,000 | 90,400 | 867,700 | 48,100 | 405,100 | 20,600 |
| Computer and mathematics sciences | 918,000 | 48,200 | 604,500 | 30,800 | 258,400 | 15,200 | 52,400 | 2,200 |
| Computer and information science..... | 812,600 | 42,200 | 575,000 | 30,200 | 213,300 | 11,100 | 21,700 | 900 |
| Mathematical science..... | 36,700 | 1,800 | 16,200 | 400 | 13,100 | 1,200 | 7,400 | 300 |
| Postsecondary mathematics..... | 68,700 | 4,300 | 13,200 | 300 | 32,000 | 2,900 | 23,300 | 1,100 |
| Life and related sciences..... | 299,200 | 12,300 | 120,000 | 3,900 | 62,600 | 2,600 | 99,500 | 4,900 |
| Agricultural/food sciences..... | 42,000 | 2,200 | 23,300 | 1,600 | 9,500 | - | 9,000 | 600 |
| Biological science..... | 167,400 | 5,500 | 69,900 | 1,300 | 32,000 | 1,600 | 57,000 | 2,400 |
| Environmental science..... | 19,700 | 900 | 13,100 | 800 | 5,800 | - | 800 | 100 |
| Postsecondary life sciences..... | 70,100 | 3,700 | 13,600 | 200 | 15,300 | 1,000 | 32,700 | 1,800 |
| Physical and related sciences..... | 267,300 | 14,400 | 124,500 | 6,500 | 65,000 | 4,800 | 77,500 | 3,100 |
| Chemistry..... | 108,000 | 5,900 | 62,700 | 3,500 | 19,400 | 1,500 | 25,800 | 900 |
| Earth sciences..... | 70,300 | 2,800 | 35,600 | 1,500 | 24,500 | 900 | 10,200 | 400 |
| Physics..... | 28,000 | 2,000 | 6,600 | 800 | 7,500 | 600 | 13,900 | 600 |
| Other physical sciences..... | 16,900 | 300 | 9,200 | 100 | 5,000 | 200 | 2,700 | 100 |
| Postsecondary physics..... | 44,100 | 3,400 | 10,400 | 600 | 8,600 | 1,600 | 24,900 | 1,100 |
| Social and related sciences..... | 301,900 | 19,500 | 58,300 | 3,300 | 129,700 | 8,300 | 106,700 | 7,200 |
| Economics..... | 33,000 | 1,200 | 10,800 | 500 | 15,400 | 200 | 6,700 | 400 |
| Political science..... | 8,900 | 100 | 5,100 | - | 2,700 | - | 1,100 | 100 |
| Psychology..... | 157,100 | 11,900 | 23,800 | 2,100 | 83,300 | 6,500 | 45,800 | 2,500 |
| Sociology..... | 15,000 | 1,400 | 7,200 | 600 | 4,900 | 600 | 2,900 | 100 |
| Other social sciences..... | 12,500 | 200 | 3,800 | - | 4,900 | - | 2,900 | 200 |
| Postsecondary social sciences..... | 75,500 | 4,800 | 7,600 | - | 18,600 | 1,000 | 47,200 | 3,800 |
| Engineering..... | 1,308,900 | 66,300 | 885,700 | 45,900 | 352,000 | 17,200 | 69,000 | 3,100 |
| Aerospace engineering..... | 71,700 | 3,500 | 41,300 | 2,600 | 26,000 | 800 | 4,200 | 100 |
| Chemical engineering..... | 70,200 | 2,800 | 45,000 | 1,600 | 18,900 | 1,000 | 6,300 | 200 |
| Civil engineering..... | 190,500 | 12,500 | 137,900 | 7,900 | 48,700 | 4,100 | 3,500 | 400 |
| Electrical engineering..... | 353,300 | 16,300 | 238,400 | 11,400 | 100,700 | 4,100 | 13,000 | 800 |
| Industrial engineering..... | 67,300 | 4,600 | 50,000 | 3,900 | 16,500 | 600 | 800 | 100 |
| Mechanical engineering..... | 252,200 | 9,100 | 188,200 | 7,200 | 55,500 | 1,800 | 8,000 | 100 |
| Other engineering..... | 274,300 | 15,600 | 180,000 | 10,800 | 77,900 | 4,100 | 16,200 | 600 |
| Postsecondary engineering..... | 29,500 | 2,000 | 4,900 | 500 | 7,800 | 700 | 16,800 | 900 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add to totals. Total includes "professional or other degrees."

Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Appendix table 5-32. Median annual salaries of full-time employed scientists and engineers, by highest degree, occupation, disability status, and age: 1995

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| Occupation and age | Bachelor's | | Master's | | Doctorate | |
|------------------------------------|------------------------------|---------------------------|------------------------------|---------------------------|------------------------------|---------------------------|
| | Persons without disabilities | Persons with disabilities | Persons without disabilities | Persons with disabilities | Persons without disabilities | Persons with disabilities |
| Science and engineering total | | | | | | |
| 20 to 29..... | \$35,000 | \$37,000 | \$38,500 | \$23,000 | \$38,000 | - |
| 30 to 39..... | 48,000 | 47,800 | 51,000 | 49,000 | 49,000 | 49,000 |
| 40 to 49..... | 55,000 | 51,000 | 58,000 | 48,800 | 60,000 | 55,000 |
| 50 or older..... | 59,856 | 55,000 | 60,000 | 60,000 | 65,400 | 65,000 |
| Computer and mathematical sciences | | | | | | |
| 20 to 29..... | 37,000 | - | 42,000 | - | 40,000 | - |
| 30 to 39..... | 48,000 | 47,000 | 55,000 | - | 55,000 | 49,000 |
| 40 to 49..... | 55,000 | 48,000 | 59,000 | 49,000 | 58,000 | 66,000 |
| 50 or older..... | 56,000 | 46,700 | 58,000 | 50,000 | 63,500 | 59,000 |
| Life and related sciences | | | | | | |
| 20 to 29..... | 20,000 | - | 24,000 | - | 27,000 | - |
| 30 to 39..... | 34,500 | - | 35,000 | - | 36,000 | 35,000 |
| 40 to 49..... | 40,000 | - | 44,000 | - | 57,700 | 53,800 |
| 50 or older..... | 46,200 | - | 43,400 | - | 65,000 | 70,000 |
| Physical and related sciences | | | | | | |
| 20 to 29..... | 27,000 | - | 25,700 | - | 37,000 | - |
| 30 to 39..... | 40,000 | - | 42,000 | - | 50,000 | 55,000 |
| 40 to 49..... | 47,000 | - | 56,900 | - | 62,500 | 62,000 |
| 50 or older..... | 55,000 | - | 58,000 | - | 70,400 | 68,900 |
| Social and related sciences | | | | | | |
| 20 to 29..... | 21,000 | - | 26,000 | - | 42,000 | - |
| 30 to 39..... | 31,000 | - | 35,000 | - | 43,000 | 40,000 |
| 40 to 49..... | 34,000 | - | 40,000 | - | 52,000 | 48,000 |
| 50 or older..... | 46,000 | - | 48,000 | - | 60,000 | 55,000 |
| Engineering | | | | | | |
| 20 to 29..... | 38,000 | 41,000 | 42,000 | - | 49,900 | - |
| 30 to 39..... | 50,000 | 52,000 | 55,000 | 58,000 | 59,000 | 58,800 |
| 40 to 49..... | 57,000 | 61,000 | 63,000 | 60,000 | 70,000 | 63,000 |
| 50 or older..... | 61,000 | 60,000 | 66,000 | 70,000 | 76,000 | 74,000 |

KEY: - = Fewer than 50 estimated.

NOTES: Because of rounding, details may not add up to totals. Median salaries were not computed with fewer than 20 individuals reporting salary. Scientists and engineers are defined in terms of field of employment not degree field.

SOURCE: National Science Foundation/SRS 1995 SESTAT Integrated Data Files.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998